

# **GOVERNMENT GAZETTE**

### **OF THE**

# **REPUBLIC OF NAMIBIA**

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No. 1668

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## **General Notice**

### MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION

No. 248

### PROPOSED CIVIL AVIATION REGULATIONS :

## PART 127 - CERTIFICATED AIRCRAFT OPERATORS AND OTHER FLIGHT OPERATIONS : AIR TRANSPORT OPERATIONS - HELICOPTERS

The Ministry of Works, Transport and Communication recently initiated the project to update the current Namibian aviation legislation. There are two main reasons for updating the aviation legislation, namely, the current legislation does not adequately reflect the policies of Namibia for the aviation sector and does not reflect recent developments within SADC. The project further aims to enhance the safety of civil aviation by ensuring that the Namibian legislation complies with the minimum standards prescribed by the International Civil Aviation Organization.

Part of the short-term legislative reform involves the updating of the regulations made under the Aviation Act, 1962 (Act 74 of 1962).

Due to the nature and extensive range of subjects which need to be regulated, this part of the project will be executed in phases and regulations will be published accordingly. The proposed structure of the Civil Aviation Regulations is set out in Schedule 1.

All the definitions for the proposed civil aviation regulations will be contained and published in Part 1. The definitions for each Part will however be published with each set of proposed regulations, to facilitate the interpretation thereof. The definitions associated with the proposed regulations on air transport operations - helicopters are set out in Schedule 2.

The Director : Civil Aviation invites all interested parties to comment on the proposed structure of the Civil Aviation Regulations, the proposed definitions associated with the proposed regulations, as well as the proposed regulations on Air Transport Operations - Helicopters set out in Schedule 3. The proposed regulations represent Part 127 of the proposed structure.

The proposed regulations on Air Transport Operations - Helicopters make provision for certain information to be contained in a document called Document NA-CATS-OPS 127. The compilation of the document does not form part of this project, but it is envisaged as a document that will contain all the technical standards regarding air transport operations - helicopters.

Comments or representations should be lodged in writing and should reach the Ministry not later than **90 days** from the date of publication of this notice. Correspondence should be addressed to:

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The Director : Civil Aviation Ministry of Works, Transport and Communication Department of Transport Private Bag 12003 WINDHOEK

Attention	:	Mr Louis Lourens
Telephone	:	208-2159
Fax	:	238-884

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Upon expiry of the aforementioned 90 day period, all comments which have been received will be evaluated for possible incorporation into the proposed regulations on Air Transport Operations - Helicopters and if necessary, a workshop will be held to finalise the proposed regulations.

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### **SCHEDULE 2**

### Definitions

In these regulations, unless the context otherwise indicates -

"acts of unlawful interference" means sabotage, unlawful seizure of aircraft or any other act by a person which endangers other persons, property or the aircraft;

"additional cabin crew member" means a cabin crew member carried over and above the minimum number required by Subpart 2 of Part 91;

"additional flight deck crew member" means a flight crew member carried over and above the minimum number required by Subpart 2 of Part 91;

"aerodrome" means an aerodrome as defined in the Act, and for the purposes of Part 91 includes a heliport;

"air traffic service flight plan" means specified information, relating to the intended flight of an aircraft, which is filed orally or in writing with an air traffic control unit;

"airworthy" means, when used in relation to an aircraft, that the aircraft is serviceable and meets all the requirements prescribed for the issue of a certificate of airworthiness and such other requirements as have been prescribed for the continuing validity of such a certificate;

"aisle" means a longitudinal passageway between seats;

"all weather operations" means any take-off, en-route or landing operations in  $\boldsymbol{k}$ 

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IMC and operated in accordance with IFR;

"amphibious helicopter" means a helicopter equipped with wheels, skids, floats or other devices enabling it to land and take-off from land and the surface of water;

"appropriate authority" -

- (a) means any institution, body or person in a State or territory which, on behalf of that State or territory carries out the provisions of the Convention; or
- (b) if such Convention does not apply to a State or territory, means the institution, body or person in that State or territory which on behalf of the State or territory, performs the functions which are performed by an institution, body or person contemplated in paragraph (a),

and which is recognised as such by the Commissioner;

"cabin crew member" means a flight crew member, other than a flight deck crew member, licensed in terms of these regulations;

"child" means a passenger who has reached his or her second but not his or her twelfth birthday;

"cloud ceiling" means the height above the ground or water of the base of the lowest layer of cloud situated below 20 000 feet and covering more than half the sky;

"commercial air transport helicopter" means, for the purposes of Part 127, a

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helicopter engaged in a commercial air transport operation;

"commercial air transport operation" means an air service as defined in the Air Services Act, 1949 (Act 51 of 1949);

"critical phases of flight" shall include all ground operations involving taxi, take-off, climb to cruise up to 10 000 feet and approach from cruise below 10 000 feet;

"day" means the period between the end of morning civil twilight and the beginning of evening civil twilight;

"decision altitude/height" means a specified altitude or height in a precision approach at which a missed approach shall be initiated if the required visual reference to continue the approach has not been established;

"Document NA-CATS-OPS 127" means a document on the Namibian Civil Aviation Technical Standards relating to commercial operation of helicopters which is published by the Director in terms of the Act;

"dry lease" means the lease of an aircraft to the lessee in terms of which the aircraft is operated under the operating certificate of the lessee;

"dry operating mass" means the total mass of the aircraft ready for a specific type of operation, excluding all usable fuel and traffic load, and including -

(a) crew members and crew member baggage;

(b) catering and removable passenger service equipment; and

(c) potable water and lavatory chemicals;

"elevated heliport" means a heliport located on a raised structure on land;

"en-route safe altitude" means an altitude which will ensure a separation height of at least 1 500 feet above the highest obstacle located within five nautical miles of the aircraft in flight;

"flight crew member" means a person assigned by an operator to duty on an aircraft during flight;

"flight deck crew member" means a licensed crew member charged by the operator of an aircraft with duties essential to the operation of an aircraft;

"flight visibility" means the visibility forward from the cockpit of an aircraft in flight;

"final approach fix" means the fix from which the final approach (IFR) to an aerodrome is executed and which identifies the beginning of the final approach segment;

"handicapped passenger" means a passenger who is physically or mentally handicapped due to illness, injury, congenital malfunction or other temporary or permanent incapacity or disability;

"helicopter" means a heavier-than-air aircraft supported in flight by the reactions of the air on one or more power-driven rotors on substantially vertical axes;

"helicopter-load combination" means the combination of a helicopter and an external-load, including the external-load attaching means;

"helideck" means a heliport located on a floating or fixed off-shore structure;

"heliport" means an aerodrome or a defined area on a structure intended to be used wholly or in part for the arrival, departure and surface movement of helicopters;

"heliport operating minima" means the limits of usability of a heliport for either take-off or landing, usually expressed in terms of visibility, decision altitude/ height or minimum descent altitude/height and cloud conditions;

"infant" means a passenger who has not reached his or her second birthday;

"initial approach fix" means the fix depicted on Instrument Approach Procedure Charts that identifies the beginning of the initial approach segment;

"instrument approach procedure" means a series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route, to a point from which a landing can be completed and thereafter, if a landing is not completed, to a position at which holding or en-route obstacle clearance criteria apply;

"International Regulations for Preventing Collisions at Sea" means the International Regulations for Preventing Collisions at Sea made under the Convention on the International Regulations for Preventing Collisions at Sea;

"landing decision point" means the point used in determining landing performance from which, a power unit failure having been recognised at this point, the landing may be safely continued or a baulked landing initiated;

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"master minimum equipment list" means a list compiled for a particular aircraft type by the manufacturer of the aircraft with the approval of the State of Manufacture containing items, one or more of which is permitted to be unserviceable at the commencement of a flight;

"maximum approved passenger seating configuration" means the maximum passenger seating capacity of an aircraft, excluding pilot seats, cockpit seats or flight deck seats as applicable, used by the operator in a commercial air transport operation, approved by the Director and specified in the operations manual referred to in regulations 121.04.2, 127.04.2 or 135.04.2;

"maximum certificated mass" means the maximum permissible mass shown in the aircraft flight manual or other document associated with the certificate of airworthiness at which an aircraft may commence its take-off under standard atmospheric conditions at sea-level;

"meteorological service" means any of the following services which provide meteorological information in support of aviation:

- (a) Climatology service, which is a service for the development and supply of climatological information for a specific place or airspace;
- (b) forecast service, which is a service for the supply of forecast meteorological information for a specific area or portion of airspace;
- (c) information dissemination service, which is a service for the collection and dissemination of meteorological information;

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- (d) meteorological briefing service, which is a service for the supply of written and oral meteorological information on existing and expected meteorological conditions;
- (e) meteorological reporting service, which is a service for the supply of routine meteorological reports; and
- (f) meteorological watch service, which is a service for maintaining a watch over meteorological conditions affecting aircraft operations in a specific area.

"minimum descent altitude/height" means a specified altitude or height in a non-precision approach or circling approach below which descent may not be made without visual references for the intended runway or touch-down area;

"missed approach point" means that point, in an instrument approach procedure at or before which the prescribed missed approach procedure shall be initiated, in order to ensure that the minimum obstacle clearance is not infringed;

"missed approach procedure" means the procedure to be followed if the approach cannot be continued;

"night" means the period between the end of evening civil twilight and the beginning of morning civil twilight;

"operating certificate" means an operating certificate issued by the Director authorising an operator of a commercial air transport aeroplane to carry out specified air transport operations;

<sup>4</sup> operational flight plan" means the operator's plan for the safe conduct of the

flight based on considerations of aircraft performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned;

"operations personnel", for the purposes of Part 138, means personnel assigned to or directly involved in ground and flight emergency medical service operations;

"owner" means an owner as defined in the Act, and for the purposes of Part 91 includes an operator of an aircraft engaged in non-commercial operations;

"precision approach" means an Instrument Approach for landing in which precision azimuth guidance and precision glide path guidance are provided in accordance with the minima prescribed for the category of operation;

"rejected take-off distance required" means the horizontal distance required from the start of the take-off to the point where the helicopter comes to a full stop following a power unit failure and rejection of the take-off at the take-off decision point;

"sector" includes take-off, en-route flight time but excludes circuit operations and landing operations;

"simulator" means -

- (a) a flight procedures trainer or synthetic flight training device; or
- (b) a type specific flight simulator,

### approved by the Director for a specific purpose;

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"State of Registry" means the State on whose register an aircraft is entered;

"take-off decision point" means the point used in determining take-off performance from which, a power unit failure having been recognised at this point, either a rejected take-off may be made or a take-off safely continued;

"take-off distance available" means -

- (a) in the case of an aeroplane, the length of the take-off run available plus the length of the clearway available; or
- (b) in the case of a helicopter, the distance from the point of lift-off to the nearest obstacle in the take-off path, of 50 feet or higher;

"take-off mass" means the mass of the aircraft, including everything and every person carried in the aircraft at the commencement of the take-off run or lift-off, as the case may be;

"touch-down area available" means the length and width of the touch down area, which is declared available by the relevant authority and suitable for the landing of a helicopter;

"traffic load" means the total mass of passengers, baggage and cargo, including any non-revenue load;

"visibility" means the ability, as determined by atmospheric conditions and expressed in units of measurement, to see and identify prominent unlighted objects by day and prominent lighted objects by night;

"visual approach" means an approach when either part or all of an instrument approach procedure is not completed and the approach is executed with visual reference to the terrain;

"wet lease" means the lease of an aircraft to the lessee in terms of which the aircraft is operated under the operating certificate of the lessor.

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### SUBPART 1

### GENERAL

### Applicability

- **127.01.1** (1) This Part shall apply to -
  - (a) helicopters engaged in commercial air transport operations within Namibia;
  - (b) helicopters registered in Namibia and engaged in commercial international air transport operations;
  - (c) persons acting as crew members of the helicopters registered in Namibia; and
  - (d) persons who are 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 Namibia, shall be deemed to be registered in Namibia.

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

### Exemptions

127.01.2 (1) The Director may exempt any helicopter or person involved in emergency operations from the provisions of this Part, on the conditions as prec; scribed in Document NA-CATS-OPS 127.

(2) An application for an exemption shall be made in accordance with the provisions of Part 11.

### Admission to cockpit

**127.01.3** (1) The operator of a commercial air transport helicopter shall ensure that no person is admitted to, or carried in the cockpit of the helicopter unless such person is -

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

(2) The final decision regarding the admission of any person to the cockpit shall be the responsibility of the pilot-in-command.

(3) The admission of any person to the cockpit shall not interfere with the operation of the helicopter.

(4) Any person carried in the cockpit shall be made familiar with the applicable procedures.

### Drunkenness

127.01.4 (1) The operator of a commercial air transport helicopter shall not permit, and no person shall enter or be in the 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.

### Dry lease-in of commercial air transport helicopter

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**127.01.5** (1) An operator who intends to dry lease-in a foreign registered helicopter for commercial air transport purposes, shall -

- (a) ensure that such helicopter can be operated and is operated in accordance with the requirements prescribed in this Part; and
- (b) obtain prior approval from the Director to operate such helicopter.

(2) The approval referred to in subregulation (1)(b) shall, subject to such conditions as the Director may determine, be granted if such helicopter is -

- (a) type certificated in accordance with the requirements prescribed in Part 21;
- (b) maintained in accordance with a helicopter maintenance schedule referred to in regulation 127.09.2;

(c) operated under the operating certificate held by the operator referred to in subregulation (1).

(3) The conditions of approval referred to in subregulation (2) shall be part of the lease agreement between the operator referred to in subregulation (1) and the operator from which the foreign registered helicopter is leased.

#### Wet lease-in of commercial air transport helicopter

**127.01.6** (1) An operator who intends to wet lease-in a foreign registered helicopter for commercial air transport purposes shall obtain prior approval from the Director to operate such helicopter.

(2) The duration of the lease agreement concerned shall be limited to a maximum period of six calendar months in one year.

(3) The approval referred to in subregulation (1) shall, subject to such conditions as the Director may determine, be granted if such helicopter -

- (a) is wet leased-in from an operator who is the holder of an operating certificate issued by an appropriate authority;
- (b) has been type-certificated by the appropriate authority;
- (c) holds a valid certificate of airworthiness or similar document issued by such appropriate authority;

(d) is maintained and operated in accordance with safety

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standards at least equivalent to the safety standards referred to in this Part; and

- (e) will be operated in terms of the operating certificate held by the operator referred to in subregulation (1).
- (4) The operator referred to in subregulation (1) shall -
  - (a) satisfy the Director that the safety standards of the lessor are not less than the safety standards referred to in this Part;
  - (b) ensure that any law applicable to the helicopter to be wet leased-in, the maintenance or operation thereof, is complied with.

(5) The total number of wet leased-in helicopters shall be such that an operator referred to in subregulation (1) will not be predominantly dependent on foreign registered helicopters.

(6) The conditions of approval referred to in subregulation (2)
shall be part of the lease agreement between the operator referred to in subregulation
(1) and the operator from which the foreign registered helicopter is leased.

### Dry lease-out of commercial air transport helicopter

**127.01.7** (1) Subject to the provisions of subregulation (2), the operator of a Namibian registered helicopter may dry lease-out the helicopter to any operator in a contracting State.

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(2) On request of the operator of a Namibian registered helicopter, the Director may exempt such operator from the applicable provisions of this Part and remove the helicopter from the operating certificate held by such operator: Provided that -

- (a) the appropriate authority of the of the State of the operator to whom such helicopter is dry leased, has accepted, in writing, responsibility for surveillance of the maintenance and operation of such helicopter; and
- (b) such helicopter is maintained according to an approved maintenance programme.

### Wet lease-out of helicopter

**127.01.8** The operator of a Namibian registered aeroplane who intends to wet lease-out the helicopter to any operator, other than an operator of a contracting State, shall remain the operator of the helicopter for the purposes of Subpart 6, and responsibility for surveillance of the maintenance and operation of such helicopter shall not be transferred to the appropriate authority of the State of the operator to which such helicopter is wet leased-out.

#### Leasing of helicopter between two Namibian operators

**127.01.9** (1) A Namibian operator who intends to lease out a helicopter and complete crew to another Namibian operator, shall remain the operator of the helicopter and shall retain the functions and responsibilities prescribed in Subpart 6.

(2) A Namibian operator, intending to utilise a helicopter leased from, or to lease it to, another Namibian operator, shall obtain prior approval from

the Director for the operation, and the conditions of approval shall be part of the lease agreement between the operators.

(3) The terms of an approved lease agreement, other than an agreement in terms of which a helicopter together with helicopter crew is leased, and where no transfer of functions and responsibilities is intended, shall include -

- (a) the arrangement concerning the operating certificate
   in terms of which the flights with the leased helicopter
   shall be operated; and
- (b) any deviation from the operating certificate in terms of which the flights with the leased helicopter are to be operated.

### Subchartering

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**127.01.10** (1) In the exceptional circumstances, as prescribed in Document NA-CATS-OPS 127, an operator may subcharter a helicopter and crew from any operator who holds a valid operating certificate for the helicopter, issued by an appropriate authority: Provided that -

- (a) the subcharter period does not exceed five consecutive days; and
- (b) the operator of the helicopter so subchartered, informsthe Director, within 24 hours, of such subcharter.
- (2) The provisions of regulations 127.01.5(1)(a) and (2),

127.01.6(3) and (4)(b) and 127.01.9(1) and (3) shall apply *mutatis mutandis* to any subcharter referred to in this regulation.

### **Preservation of documents**

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**127.01.11** The operator of a commercial air transport helicopter who is required to retain any of the documents for a specified period referred to in Subpart 4, shall retain such documents for such specified period irrespective of the fact that such operator, before the expiry of such specified period, ceases to be the owner or possessor of the helicopter concerned.

### SUBPART 2 FLIGHT CREW

### **Composition of flight crew**

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

(2) The operator of a commercial air transport helicopter 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 ensure that the flight crew members -
  - (a) are competent to perform the duties assigned to them; and
  - (b) hold the appropriate valid licences and ratings, where applicable.

(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) When deemed necessary for the safe conduct of a flight, the flight crew shall include at least one member who is proficient in navigating over the route to be flown.

### (6) The operator shall ensure that -

- (a) in the case of operations under IFR or at night in a commercial air transport helicopter, when more than nine passengers are carried; or
- (b) in the case of any operation in a commercial air transport helicopter, 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 subregulation (8) are complied with: Provided further that if the requirements referred to in subregulation (8) are not complied with, the minimum flight crew shall be two pilots.

(8) A helicopter referred to in subregulation (7) may be operated by a single pilot under IFR or at night if the following requirements are complied with:

- (a) The helicopter shall be certificated for single-pilot IFR or night operations;
- (b) the operator shall include, in the operations manual referred to in regulation 127.04.2, a conversion and recurrent training programme for pilots which includes the additional requirements for a single-pilot operation;

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- (c) the cockpit procedures shall include -
  - (i) engine management and emergency handling;
  - (ii) use of normal, abnormal and emergency checklist;
  - (iii) air traffic service communication;
  - (iv) departure and approach procedures;
  - (v) stability augmentation or automatic flight control manage-ment; and
  - (vi) simplified in-flight documentation;
- (d) the recurrent checks prescribed in Subpart 3, shall be performed in the single-pilot role on the type or class of helicopter in an environment representative of the operation;
- (e) the pilot concerned shall have a minimum of 50 hours
   flight time on the specific type or class of helicopter
   under IFR of which 10 hours shall be as pilot-in-command; and
- (f) the minimum required recent experience for a pilot engaged in a single-pilot operation under IFR or at night shall be -

- (i) under IFR:
  - (aa) executed at least two actual approacheswith reference to flight instruments only;
  - (bb) executed at least two approaches either under actual or simulated conditions with reference to flight instruments only;
- (ii) at night when passengers are to be carried: not less than five circuits (including take-off and landing) by night in a helicopter of the same category as that in which such passenger-carrying flight is to be undertaken; or
- (iii) passed a skill test as prescribed in Part 61.

(9) The operator shall designate one pilot among the flight crew as pilot-in-command of a commercial air transport helicopter and the pilot-in-command may delegate the conduct of the flight to another suitably qualified pilot.

### **Crew member emergency duties**

**127.02.2** (1) The operator and, where appropriate, the pilot-in-command of a commercial air transport helicopter, operated by a multi-crew, shall assign to each crew member concerned, the necessary functions to be performed in an emergency or a situation requiring emergency evacuation.

(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 crew members.

(3) The operator shall prove to the satisfaction of the Director that the crew members are competent to perform such functions, by means of an emergency evacuation demonstration carried out in accordance with the requirements prescribed in Document NA-CATS-OPS 127.

(4) The operator shall carry out an emergency evacuation demonstration referred to in subregulation (3) when a new type or variant of helicopter or new configuration of an existing helicopter is introduced for use.

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

#### **Recency, route and heliport qualifications**

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**127.02.3** (1) A pilot shall not act as pilot-in-command of a commercial air transport helicopter operated on a scheduled public air transport service, unless the pilot has within the preceding 12 months demonstrated to the operator of such helicopter an adequate knowledge of -

- (a) the route to be flown,
- (b) the heliports to be used;
- (c) the procedures applicable to flight paths over heavily populated areas and areas of higher traffic density; and

 (d) obstructions, physical layout, lighting, approach aids and arrival, departure, holding and instrument approach procedures including operating minima.

(2) If a route requires a specific type of navigation qualification, the pilot-in-command shall within the 12 months immediately preceding a flight on such route, demonstrate his or her ability to the operator of the commercial air transport helicopter by -

- (a) flying over the route as pilot-in-command using the applicable special type of navigation system; or
- (b) flying over the route under the supervision of a suitably qualified pilot using the applicable special type of navigation system.

### Cabin crew complement

**127.02.4** (1) If the certificate of airworthiness of a commercial air transport helicopter requires the carrying of one or more cabin crew members, the operator of the helicopter shall not, when carrying one or more passengers, operate such helicopter without carrying the minimum number of cabin crew as prescribed in Document NA-CATS-OPS 127.

(2) Cabin crew members are carried for the purposes of performing duties relating to the safety of passengers and other duties assigned by the operator or the pilot-in-command.

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

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- (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.

### Operation on more than one type or variant by cabin crew

**127.02.5** (1) A cabin crew member shall not operate on more than three helicopter types: Provided that the Director may approve the operation on four helicopter types if the emergency and safety equipment and procedures for at least two of the helicopter types are similar.

(2) The types of helicopter which are similar in respect of emergency and safety equipment and procedures shall be listed in Document NA-CATS-OPS 127.

### Senior cabin crew

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**127.02.6** (1) The operator of a commercial air transport helicopter shall appoint a senior cabin crew member whenever more than one cabin crew member is carried on board the helicopter.

(2) The senior cabin crew member shall be responsible to the pilot-in-command for the conduct of cabin operations and the co-ordination 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

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event of the nominated senior cabin crew member being unable to operate.

#### Cabin crew emergency evacuation stations

**127.02.7** A cabin crew member assigned to perform evacuation duties in a commercial air transport helicopter shall occupy the seat provided therefor during take-off and landing or when so directed by the pilot-in-command in the interest of safety.

#### Seating of cabin crew during flight

**127.02.8** During take-off and landing, and whenever deemed necessary by the pilot-in-command in the interest of safety, cabin crew shall be seated at their assigned station or seat.

### Flight time and duty periods

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**127.02.9** (1) The operator of a commercial air transport helicopter shall -

- (a) establish a scheme for the regulation of flight time and duty periods for each crew member; and
- (b) include the scheme referred to in paragraph (a) in the operations manual referred to in regulation 127.04.2;
- (c) ensure that each crew member complies with the provisions of the scheme referred to in paragraph (a);
- (d) not cause or permit any crew member to fly in the helicopter if such operator knows or has been made aware

that such crew member -

- (i) will exceed the flight time and duty period prescribed in subregulation (1)(a) while on flight duty; or
- (ii) is suffering from 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; and
- (e) not schedule a crew member for active flight duty for a period exceeding eight consecutive hours during any given flight time and duty period unless authorised in the scheme referred to in paragraph (a).

(2) Except with the approval of the Director, the flight and duty scheme of the operator shall not be in conflict with the provisions of regulation 91.02.3(1)(f).

(3) The provisions to be included in a flight and duty scheme referred to in subregulation (1) shall be as prescribed in Document NA-CATS-OPS 127.

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#### **SUBPART 3**

## TRAINING AND CHECKING

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

### **Training of flight crew members**

**127.03.1** (1) The operator of a commercial air transport helicopter shall establish and maintain a ground and flight training programme for flight crew members in his or her employ.

- (2) The operator shall ensure that -
  - (a) each flight crew member receives training in accordance with this Subpart and the appropriate syllabus as prescribed in Document NA-CATS-OPS 127;
  - (b) the training shall only be provided by the holder of an aviation training organisation approval issued in terms of Part 141; and
  - (c) each flight crew member passes a written examination with regard to all the subjects of the training syllabi referred to in paragraph (a).

(3) The provisions of this Subpart shall apply in respect of fulltime as well as part-time employed flight crew members.

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## Initial training of flight crew members

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**127.03.2** A flight crew member employed by the operator of a commercial air transport helicopter shall have successfully completed the initial training and skill tests as prescribed in Part 61 or 64, as the case may be.

## **DIVISION TWO : PILOT TRAINING**

#### **Conversion training**

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**127.03.3** (1) The operator of a commercial air transport helicopter shall ensure that -

- (a) a flight deck crew member completes a type conversion course in accordance with the applicable requirements prescribed in Part 61 when changing from one type of helicopter to another type or class for which a new type or class rating is required;
- (b) a flight deck crew member completes an operator's type conversion course before commencing unsupervised operational flying -
  - (i) when changing to a helicopter for which a new type or class rating is required; or
  - (ii) when employed by such operator;
- (c) type conversion training is conducted by a competent person in accordance with the detailed course syllabus included in the operations manual referred to in regulation 127.04.2, and as prescribed in Document NA-CATS-OPS 127;
- (d) the amount of training required by the operator's type conversion course is determined after due note has been

taken of the flight deck crew member's previous training as recorded in the training records referred to in regulation 127.04.5;

- (e) the minimum standards of qualification and experience required of flight deck crew members before undertaking type conversion training are specified in the operations manual referred to in regulation 127.04.2;
- (f) each flight deck crew member undergoes the checks prescribed in regulation 127.03.7(2) and the training and checks prescribed in regulation 127.03.7(6) before commencing operational flying under supervision;
- (g) upon completion of operational flying under supervision, the check prescribed in regulation 127.03.7(4) is undertaken; and
- (h) in the case of multi-crew operations, crew resource management training as prescribed in Document NA-CATS-OPS 127 is incorporated in the conversion course.

(2) In the case of changing helicopter type or class, the check prescribed in regulation 127.03.7(2) may be combined with the type or class rating skill test prescribed in Part 61.

(3) The operator's type conversion course and the type or class rating course prescribed in Part 61, may be combined.

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(4) The operator's type conversion course shall include the items,

and shall be conducted in the order, as prescribed in Document NA-CATS-OPS 127.

(5) When a flight deck crew member has not previously completed an operator's type conversion course, the operator shall ensure that, in addition to subregulation (4), the flight deck crew member undergoes general first-aid training and, if applicable, ditching-procedures training using the appropriate equipment in water.

#### Differences training and familiarisation training

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**127.03.4** (1) The operator of a commercial air transport helicopter shall ensure that a flight deck crew member completes differences training when -

- (a) operating another variant of a helicopter of the same type or another type of the same class currently operated; or
- (b) a change of equipment or procedures on types or variants currently operated, requires the acquisition of additional knowledge.

(2) The operator shall ensure that a flight deck crew member completes familiarisation training when -

- (a) operating another helicopter of the same type or variant; or
- (b) a change of equipment or procedures on types or vari-

ants currently operated, requires the acquisition of additional knowledge.

(3) The operator shall specify in the operations manual referred to in regulation 127.04.2 when differences training or familiarisation training is required.

#### Upgrading to pilot-in-command

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**127.03.5** (1) The operator of a commercial air transport helicopter shall ensure that, for an upgrade to pilot-in-command from co-pilot, and for a pilot joining as pilot-in-command -

- (a) a minimum level of experience is specified in the operations manual referred to in regulation 127.04.2; and
- (b) for multi-crew operations, the co-pilot or pilot, as the case may be, completes an appropriate command course.

(2) The command course referred to in subregulation (1)(b) shall be specified in the operations manual referred to in regulation 127.04.2, and shall include -

- (a) if a for the purpose approved flight simulator is available, training in such simulator, including operational flying training, or flying training on the helicopter;
- (b) an operator proficiency check operating as pilot-incommand;

- (c) pilot-in-command responsibilities;
- (d) operational training in command under supervision:Provided that a minimum of 10 sectors is required for pilots already qualified on the helicopter type;
- (e) completion of a pilot-in-command operational check prescribed in regulation 127.03.7(4);
- (f) in the case of scheduled air service operations, the recency, route and heliport qualifications prescribed in regulation 127.02.3; and
- (g) in the case of multi-crew operations, crew resource management training as prescribed in Document NA-CATS-OPS 127.

## Pilot-in-command holding a commercial pilot licence

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127.03.6The operator of a commercial air transport helicopter shallensure that -

- (a) a holder of a commercial pilot licence (helicopter) does not operate as a pilot-in-command of a helicopter certificated in the flight manual referred to in regulation 91.03.2 for single-pilot operations unless -
  - (i) when conducting passenger carrying operations under VFR outside a radius of 50 nautical miles from a heliport of departure, the pilot has a mini-

mum 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 helicopter 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 co-pilot on the basis of two hours co-pilot is equivalent to one hour as pilot-in-command, provided those hours were gained within an established multi-pilot crew system prescribed in the operations manual referred to in regulation 127.04.2;
- (iii) in addition to paragraph (a)(ii), when operating under IFR as a single pilot, the requirements prescribed in regulation 127.02.1(8) are complied with;
- (iv) in multi-pilot crew operations, and prior to the pilot operating as pilot-in-command, the command course prescribed in regulation 127.03.5(1)(b) is completed.

#### **Recurrent training and checking**

**127.03.7** (1) The operator of a commercial air transport helicopter shall ensure that -

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- (a) each flight deck crew member undergoes recurrent training and checking and that all such training and checking is relevant to the type or variant of helicopter on which the flight deck crew member is licensed to operate;
- (b) a recurrent training and checking programme is included in the operations manual referred to in regulation 127.04.2;
- (c) recurrent training is conducted by -
  - (i) a competent person, in the case of ground and refresher training;
  - (ii) a type-rated instructor, in the case of helicopter or flight simulator training;
  - (iii) competent personnel in the case of emergency and safety equipment training and checking; or
  - (iv) competent personnel, in the case of crew resource management training;
- (d) recurrent checking is conducted by -
  - (i) an examiner in the case of operator proficiency checks; and
  - (ii) a pilot-in-command designated by the operator

in the case of operational checks; and

 (e) each flight deck crew member undergoes operator proficiency checks every six calender months as part of a normal flight crew complement.

(2) The operator shall ensure that, in the case of an operator proficiency check referred to in subregulation (1)(e) -

- (a) each flight deck crew member undergoes such checks
   to demonstrate his or her competence in carrying out
   normal, abnormal and emergency procedures; and
- (b) such check is conducted without external visual reference when the flight deck crew member will be required to operate under IFR.

(3) Upon successful completion of the operator proficiency check referred to in subregulation (1)(e), the operator shall issue a certificate of competency to the flight deck crew member concerned, which certificate shall be valid for a period of six calendar months calculated from the last day of the calender month in which such certificate is issued.

(4) The operator shall ensure that, in the case of an operational check, each flight deck crew member undergoes the operational check on the helicopter to demonstrate his or her competence in carrying out normal operations specified in the operations manual referred to in regulation 127.04.2.

(5) Upon successful completion of the operational check referred

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to in subregulation (4), the operator shall issue a certificate of competency to the flight deck 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.

(6) The operator shall ensure that, in the case of emergency and safety equipment training and checking, each flight deck crew member undergoes training and checking on the location and use of all emergency and safety equipment carried.

(7) Upon successful completion of the emergency and safety equipment check referred to in subregulation 6, the operator shall issue a certificate of competency to the flight deck 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.

(8) The operator shall ensure that, in the case of crew resource management training, each flight deck crew member undergoes such training as part of the recurrent training as prescribed in Document NA-CATS-OPS 127.

(9) The operator shall ensure that, in the case of ground and refresher training, each flight deck crew member undergoes such training every 12 calendar months.

#### Pilot qualification to operate in either pilot's seat

**127.03.8** The operator of a commercial air transport helicopter shall ensure that -

(a) a pilot to be assigned to operate in either pilot's seat,

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- completes the appropriate training and checking; and
- (b) the training and checking programme is -
  - (i) specified in the operations manual referred to in regulation 127.04.2; and
  - (ii) is undertaken in accordance with the appropriate syllabus as prescribed in Document NA-CATS-OPS 127.

## Advanced qualification programme

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**127.03.9** (1) The period of validity for the training referred to in regulation 127.03.7 may be extended if the Director has approved an advanced qualification programme established by the operator.

(2) The advanced qualification programme shall contain training and checking which establishes and maintains a proficiency that is not less than the proficiency referred to in regulations 127.03.3(4), 127.03.4, 127.03.5, 127.03.6 and 127.03.7.

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

## **Initial training**

**127.03.10** The operator of a commercial air transport helicopter shall ensure that each cabin crew member successfully completes the initial training, prescribed in Part 64 before undertaking type and differences training.

Type and differences training

**127.03.11** (1) The operator of a commercial air transport helicopter 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) employed 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

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 (b) in an 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 NA-CATS-OPS 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.

#### **Familiarisation flights**

**127.03.12** The operator of a commercial air transport helicopter shall ensure that upon completion of type training or differences training, each cabin crew member undertakes familiarisation flights before acting as one of the minimum number

of cabin crew prescribed in regulation 127.02.4.

#### **Recurrent training**

**127.03.13** (1) The operator of a commercial air transport helicopter 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 NA-CATS-OPS 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 NA-CATS-OPS 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 calender month in which such certificate is issued.

#### **Refresher training**

**127.03.14** (1) The operator of a commercial air transport helicopter shall ensure that each cabin crew member who has been absent from all flying duties for more than six months completes the refresher training specified in the operations manual referred to in regulation 127.04.2, as prescribed in Document NA-CATS-OPS 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 aeroplane type for a period of six months, completes -

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- (a) refresher training in such aeroplane type; or
- (b) two familiarisation sectors during commercial operations in such aeroplane type,

before undertaking duties or such aeroplane type.

#### Checking

**127.03.15** (1) The operator of a commercial air transport helicopter shall ensure that during or following completion of the training prescribed in regulations 127.03.10, 127.03.11 and 127.03.13 each cabin crew member undergoes a check covering the training received in order to verify his proficiency in carrying out safety and emergency duties.

(2) The checks referred to in subregulation (1) shall be performed by competent personnel.

(3) The operator shall ensure that each cabin crew member undergoes checks of the items for initial, type, differences and recurrent training, as prescribed in Document NA-CATS-OPS 127.

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# DIVISION FOUR : TRAINING OF OTHER FLIGHT CREW MEMBERS

## Training

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**127.03.16** (1) The operator of a commercial air transport helicopter shall provide an initial, recurrent and refresher training course for a -

(a) load master;

- (b) winch operator;
- (c) navigator; or

(d) other crew member essential to safe operations,

if the operator has such operations personnel in his or her employ.

(2) The training course referred to in subregulation (1) shall be specified in the operations manual referred to in regulation 127.04.2.

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## SUBPART 4 DOCUMENTATION AND RECORDS

## Documents to be retained on the ground

**127.04.1** (1) The operator of a commercial air transport helicopter engaged in a scheduled public air transport service, shall ensure that -

- (a) a copy of the relevant parts of the flight folio;
- (b) the load and trim sheet;
- (c) the passenger list or cargo manifest;
- (d) the special loads notification, if applicable; and
- (e) a general declaration in the case of a helicopter engaged in international flight,

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

(2) The documents referred to in subregulation (1) shall be retained for a period of at least 90 days.

## **Operations manual**

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**127.04.2** (1) The operator of a commercial air transport helicopter 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 provisions of the Air Services Act, 1949 (Act 51 of 1949).

(2) The operator shall submit the operations manual in duplicate to the Director for approval.

- (3) If the Director is satisfied that the operator -
  - (a) will comply with the provisions of regulation 127.06.7;and
  - (b) will not operate the air service concerned contrary to any provision of the Act, the Air Services Act, 1949, or the Civil Aviation Offences Act, 1972 (Act 10 of 1972),

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.

(4) The operator shall submit an amendment to an approved operations manual in duplicate to the Director for approval.

(5) If the Director is satisfied that the operator will comply with the provisions of subregulation (3)(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 *apperator*.

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(6) The operator shall at all times operate the commercial air transport helicopter in accordance with the approved operations manual or an approved amendment thereto.

- (7) The operator shall -
  - (a) ensure that all operations personnel are able to understand the language used in those sections of the operations manual which pertain to their duties;
  - (b) ensure that every flight is conducted in accordance with the operations manual and that those parts of the operations manual which are required for the conduct of a flight, are easily accessible to the crew members on board;
  - (c) make the operations manual available for the use and guidance of operations personnel;
  - (d) provide the flight crew members with their own personal copy of the sections of the operations manual which are relevant to the duties assigned to them;
  - (e) keep the operations manual up to date; and
  - (f) keep the operations manual in a safe place.

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(8) The contents of the operations manual shall not contravene

the conditions contained in the operating certificate issued to the operator in terms of regulation 127.06.3.

(9) The structure and contents of the operations manual referred to in subregulation (1) shall be as prescribed in Document NA-CATS-OPS 127.

#### Flight time and duty period records

**127.04.3** (1) The operator of a commercial air transport helicopter shall -

- (a) maintain current flight time and duty period records of ,all crew members in such operator's employ; 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.

(2) A flight crew member in part-time employ of an operator shall maintain his or her own flight time and duty period records and shall provide copies thereof to the operator to enable such operator to ensure that such flight crew member does not exceed the limits prescribed in the flight and duty scheme of the operator referred to in regulation 127.02.9.

#### **Records of emergency and survival equipment**

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**127.04.4** (1) The operator of a commercial air transport helicopter 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 NA-CATS-OPS 127.

#### Crew member training records

**127.04.5** (1) The operator of a commercial air transport helicopter shall maintain the records of all training and proficiency checks undertaken by the crew members in such operator's employ, and such records shall incorporate certificates indicating the successful completion of such training and proficiency checks.

(2) The operator shall retain the record of each flight crew member for a period of at least three years and the record of each cabin crew member for a period of at least 12 months from the date on which the crew member concerned has left the employ of such operator.

(3) The certificates referred to in subregulation (1) shall be made available by the operator to the crew member concerned on request.

#### Load and trim sheet

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**127.04.6** (1) The operator of a commercial air transport helicopter with a maximum approved passenger seating configuration of more than nine seats -

(a) registered in Namibia and operated into, within or from
 Namibia under a licence issued in terms of the Air Services Act, 1949; or

 (b) registered in a foreign State and operated into, within or from Namibia under a licence issued in terms of the Air Services Act, 1949,

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

 (2) A load and trim sheet shall be completed in duplicate and one copy shall be carried in the helicopter and, one copy shall be retained in accor dance with the provisions of regulation 127.04.1.

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

(4) The minimum contents of a load and trim sheet shall be as prescribed in Document NA-CATS-OPS 127.

#### Helicopter checklist

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**127.04.7** The operator of a commercial air transport helicopter, shall, in addition to the aircraft checklist referred to in regulation 91.03.3, compile and make available to the flight crew and other staff members in such operator's employ, a checklist of the procedures to be followed by such flight crew and staff members when searching for concealed weapons, explosives or other dangerous devices.

## SUBPART 5 INSTRUMENTS AND EQUIPMENT

#### Approval of instruments and equipment

**127.05.1** (1) The operator of a commercial air transport helicopter shall ensure that a flight does not commence unless the instruments and equipment required under this Subpart, or otherwise installed on the helicopter, 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 MEL.
- (2) The operator shall not be required to obtain approval for the -
  - (a) fuses 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;
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- (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.

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

**127.05.2** (1) The operator of a commercial air transport helicopter shall not operate the helicopter in accordance with VFR, unless such helicopter is equipped with -

- (a) a magnetic compass;
- (b) an accurate time-piece indicating the time in hours, minutes, and seconds;
- (c) a sensitive pressure altimeter calibrated in feet, with a subscale setting, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight;
- (d) an airspeed indicator;

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- (e) a vertical speed indicator;
- (f) a turn-and-slip indicator or a turn coordinator, incorporating a slip indicator;

- (g) an attitude indicator;
- (h) a stabilised direction indicator; and
- (i) a means of indicating in the cockpit 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 paragraph (g) and (h).

(2) If two pilots are required to operate a commercial air transport 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 direction indicator:

less, does not have to comply with the provisions of paragraph (e) and (f).

(3) A commercial air transport helicopter being operated 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 a radio altimeter with an audio warning operating below a preset height and a visual warning capable of operating at a height selectable by the pilot.

#### Flight, navigation and associated equipment for aircraft operated under IFR

**127.05.3** (1) The operator of a commercial air transport helicopter shall not operate the helicopter in accordance with IFR, unless such helicopter is equipped with -

(a) a magnetic compass;

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 (b) an accurate time-piece 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 operated in a scheduled or non-scheduled public air transport service and having a maximum certificated mass in excess of 5700 kilograms, a radio altimeter with an audio warning operating below a preset 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 a turn coordinator, incorporating a slip 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

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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;

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- (k) a means of indicating in the flight crew compartmentthe outside air temperature in degrees Celsius; and
- an alternate source of static pressure for the altimeter and the airspeed and vertical speed indicators.

(2) If two pilots are required to operate a commercial air trans-

port 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, 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 a turn coordinator, incorporating a slip indicator;
- (e) an attitude indicator; and
- (f) a stabilised direction indicator.

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

(4) Where the standby attitude indicator referred to in subregulation (1)(i) has its own dedicated power supply, there shall be an associated

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indicator, either on the instrument or instrument panel, when such power supply is in use.

#### Airborne weather radar equipment

**127.05.4** The operator of a commercial air transport helicopter with a maximum approved passenger seating configuration of more than nine seats on a scheduled or non-scheduled public air transport service, shall not operate the helicopter unless such helicopter equipped with airborne weather radar 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.

#### **Cockpit crew interphone system**

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

#### Flight crew member interphone system

**127.05.6** (1) The operator of a commercial air transport 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 flight crew member interphone system.

(2) The flight crew member interphone system shall -

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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 cockpit and each passenger compartment;
- (c) be readily accessible for use from each of the required cockpit crew stations in the cockpit;
- (d) be readily accessible for use at the required cabin crew stations close to each separate or pair of floor level emergency exits;
- (e) have an alerting system incorporating aural or visual signals for use by cockpit crew members to alert the cabin crew and for use by cabin crew to alert the cockpit 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 two cockpit crew members, if the design of the helicopter requires such interphone communication.

#### **Public address system**

**127.05.7** (1) The operator of a commercial air transport 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 cockpit 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 floor level 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;

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(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.

#### Helicopters certificated for operating on water

**127.05.8** The operator of a commercial air transport helicopter certificated for operating on water, shall not operate the helicopter on water unless such helicopter is equipped with -

- (a) a sea anchor and other equipment necessary to facilitate the mooring, anchoring or manoeuvring such helicopter on water, appropriate to its size, weight and handling characteristics; and
- (b) equipment for making the sound signals prescribed in the International Regulations for Preventing Collisions at Sea, where applicable.

## Survival suits

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**127.05.9** The operator of a commercial air transport helicopter shall not operate the 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 7

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(b) the estimated rescue time exceeds the calculated sur-

vival time,

unless each person on board is wearing a survival suit.

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## SUBPART 6

## **OPERATING CERTIFICATE**

#### **Operating certificate**

**127.06.1** The operator of a commercial air transport helicopter shall not operate the helicopter unless such operator is the holder of a valid -

- (a) licence issued in terms of the Air Services Act, 1949; and
- (b) operating certificate issued in terms of regulation 127.06.3.

## **Application for operating certificate**

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**127.06.2** An application for an operating certificate shall be made to the Director in the appropriate form as prescribed in Document NA-CATS-OPS 127 and shall be accompanied by the appropriate fee as prescribed in Part 187.

#### Adjudication of application for operating certificate

**127.06.3** (1) In considering an application referred to in regulation 127.06.2 the Director may conduct the investigation he or she deems necessary.

(2) An application shall be granted and the operating certificate issued if the Director is satisfied that -

(a) the applicant will comply with the provisions of regulation 127.06.7; and

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(b) the applicant will not operate the air service concerned contrary to any provision of the Act, the Civil Aviation Offences Act, 1972, and the Air Services Act, 1949.

(3) If the Director is not so satisfied, he or she shall notify the operator thereof, stating the reasons in the notification, and grant the operator the opportunity to rectify or supplement any defect within the period determined by the Director, after which period the Director shall grant or refuse the application concerned.

(4) An operating certificate shall be issued on the appropriate form as prescribed in Document NA-CATS-OPS 127, under such conditions which the Director may determine.

### Period of validity of operating certificate

**127.06.4** (1) An operating certificate shall be valid for such period as may be determined by the Director: Provided that such period shall not exceed a period of 12 months from the date of issuing thereof.

(2) If the holder of an operating certificate applies, at least 30 days prior to the expiry thereof, for a new operating certificate, that first-mentioned operating certificate shall, notwithstanding the provisions of subsection (1), remain in force until such holder is notified by the Director of the result of the application for the issuing of a new operating certificate.

### Safety inspections and audits

127.06.5 (1) An applicant for the issuing of an operating certificate shall permit an authorised officer, inspector or authorised person to carry out such safety

inspections and audits which may be necessary to verify the validity of an application made in terms of regulation 127.06.2.

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

### Suspension and cancellation of operating certificate and appeal

127.06.6 (1) An authorised officer, inspector or authorised person may suspend for a period not exceeding 30 days, an operating certificate issued under this Subpart, if -

- (a) after a safety inspection and audit carried out in terms of regulation 127.06.5, it is evident that the holder of the operating certificate does not comply with the requirements prescribed in this Part, and such holder fails to remedy such non-compliance within 30 days after receiving notice in writing from the authorised officer, inspector or authorised person to do so;
- (b) the authorised officer, inspector or authorised person is prevented by the holder of the operating certificate to carry out a safety inspection and audit in terms of regulation 127.06.5; or
- (c) the suspension is necessary in the interests of aviation safety.

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(2) The authorised officer, inspector or authorised person who has suspended an operating certificate in terms of subregulation (1), shall deliver a report in writing to the Director, stating the reasons why, in his or her opinion, the suspended operating certificate should be cancelled.

(3) The authorised officer, inspector or authorised person concerned shall submit a copy of the report referred to in subregulation (2), to the holder of the operating certificate which has been suspended, and shall furnish proof of such submission for the information of the Director.

(4) The holder of an operating certificate who feels aggrieved by the suspension of the approval may appeal against such suspension to the Director, within 30 days after such holder becomes aware of such suspension.

(5) An appellant shall deliver an appeal in writing, stating the reasons why, in his or her opinion, the suspension should be varied or set aside.

(6) The appellant shall submit a copy of the appeal and any documents or records supporting such appeal, to the authorised officer, inspector or authorised person concerned and shall furnish proof of such submission for the information of the Director.

(7) The authorised officer, inspector or authorised person concerned may, within 30 days of receipt of the copy of the appeal referred to in subregulation (6), deliver his or her written reply to such appeal to the Director.

- (8) The Director may -
  - (a) adjudicate the appeal on the basis of the documents submitted to him or her; or

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(b) order the appellant and the authorised officer, inspector or authorised person concerned to appear before him or her, either in person or through a representative, at a time and place determined by him or her, to give evidence.

(9) The Director may confirm, vary or set aside the suspension referred to in subregulation (1).

- (10) The Director shall -
  - (a) if he or she confirms the suspension in terms of subregulation (9); or
  - (b) if an operating certificate is suspended in terms of subregulation (1) and the holder thereof does not appeal against such suspension in terms of subregulation (4),

cancel the operating certificate concerned.

# Duties of holder of operating certificate

127.06.7 The holder of an operating certificate shall -

(a) notify the Director in the manner as prescribed in Document NA-CATS-OPS 127, before any change is effected to the particulars on the operating certificate;

 (b) keep the operating certificate in a safe place and produce such operating certificate to an authorised officer, inspector or authorised person for inspection if so requested by such officer, inspector or person; and

(c) not commence or continue with the air service concerned unless such holder is the holder of a valid operating certificate.

# **Register of operating certificates**

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**127.06.8** (1) The Director shall maintain a register of all operating certificates issued in terms of the regulations in this Part.

- (2) The register shall contain the following particulars:
  - (a) The full name and, if any, the trade name of the holder of the operating certificate;
  - (b) the postal address of the holder of the operating certificate;
  - (c) the number of the operating certificate issued to the holder;
  - (d) particulars of the type of air service for which the operating certificate was issued;
  - (e) particulars of the category of aeroplane for which the operating certificate was issued; and

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(f) the date on which the operating certificate was issued.

(3) The particulars referred to in subregulation (2) shall be recorded in the register within seven days from the date on which the operating certificate is issued by the Director.

(4) The register shall be kept in a safe place at the office of the Director.

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

# SUBPART 7

# **FLIGHT OPERATIONS**

### Routes and areas of operation

**127.07.1** (1) The operator of a commercial air transport helicopter shall ensure that scheduled public air transport service operations are only conducted along such routes for which -

- (a) ground facilities and services, including meteorological services, are provided which are adequate for the planned operation;
- (b) appropriate maps and charts are available; and
- (c) where a single-engine helicopter is used, surfaces are available which permit a safe forced landing to be executed.

(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 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,
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complies with the minimum requirements for the planned operation.

# **Establishment of procedures**

127.07.2 The operator of a commercial air transport helicopter shall -

- (a) establish procedures and instructions, for each helicopter type, containing ground staff and crew member's duties for all types of operations on the ground and in flight;
- (b) establish a checklist system to be used by flight crew members for all phases of operation under normal, abnormal and emergency conditions, to ensure that the operating procedures in the operations manual referred to in regulation 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.

### **Operational control and supervision**

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**127.07.3** The operator of a commercial air transport helicopter shall exercise operational control and establish and maintain an approved method of supervision of flight operations.

### **Competence of operations personnel**

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

### Use of air traffic services

**127.07.5** The operator of a commercial air transport helicopter shall ensure that air traffic services are used for all flights whenever available.

### Minimum flight altitudes

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**127.07.6** (1) The operator of a commercial air transport helicopter shall establish minimum flight altitudes for all operations carried out in accordance with IFR and all scheduled public air transport service operations, as well as 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 operating limitations referred to in Subpart 8.

(2) The operator shall take into account, when establishing minimum flight altitudes -

- (a) the accuracy with which the position of the helicoptercan be determined;
- (b) the probable 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) In complying with the provisions of subregulation (2) the operator shall consider -

- (a) corrections for temperature and pressure variations from standard values;
- (b) the air traffic control requirements; and
- (c) any contingencies which may occur along the planned route.

### Heliport operating minima

**127.07.7** (1) The operator of a commercial air transport helicopter shall establish heliport operating minima in accordance with the provisions of subregulations (2), (3), (4) and (5) and in conjunction with the instrument approach and landing charts for each heliport and aerodrome intended to be used either as destination or as an alternate.

(2) The operator shall establish heliport operating minima for each heliport and aerodrome planned to be used, which shall not be lower than the values as prescribed in Document NA-CATS-OPS 127. (3) The method of determining heliport operating minima shall be approved by the Director.

(4) The heliport operating minima established by the operator shall not be lower than any heliport operating minima established by the authority of a State in which the heliport concerned is located: Provided that if such authority approves such lower heliport operating minima established by the operator, the lower heliport operating minima shall apply.

#### **Offshore operations**

**127.07.8** (1) The operator of a commercial air transport helicopter shall ensure that, in the case of flights over water -

- (a) radio contact is maintained with his or her shore base or other flight-monitoring station;
- (b) a full complement of crew to operate the helicopter and its safety equipment under normal and emergency conditions; and
- (c) the helicopter is equipped for flights over water in terms of these regulations.
- (2) In the case of a single reciprocating engine helicopter -
  - (a) flights shall be limited to five nautical miles seaward from shore base;
  - (b) no flights shall be undertaken except by day and under

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VMC, and no flight shall be commenced which cannot be completed at least one hour before last light;

- (c) a back-up helicopter or rescue craft, which is suitably manned and equipped for air and sea rescue operations and which is fully operational, shall be on stand-by at the shore base with survival and rescue equipment on board, adequate for the rescue of the passengers and crew of the helicopter for which it is on stand-by.
- (3) In the case of a single turbine engine helicopter -
  - (a) flights shall be limited to 50 nautical miles seaward from shore base;
  - (b) no flights shall be undertaken except during day and under VMC;
  - (c) for flights over water from five 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
  - (d) for flights over water of more than 15 nautical miles a back-up helicopter or rescue craft, as prescribed in subregulation (2)(c), shall be available for search and rescue purposes.

(4) In the case of multi-engine helicopters the operator shall comply with the provisions of subregulation (1) and in addition, if a flight is to be under-

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taken at night or under IMC, shall ensure that -

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

(5) For the purpose of this regulation 'shore base' shall mean the site from which the flight over water is commenced or supported.

### **Smoking in helicopter**

**127.07.9** No person shall smoke in a Namibian registered helicopter when such helicopter is operated on a scheduled public air transport service has departed from and will be landing within Namibia.

### **Fuel policy**

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

(2) The operator shall ensure that the planning of a flight is only based upon -

 (a) procedures, tables or graphs which are contained in or derived from the operations manual referred to in regulation 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; and
  - (iv) air traffic service procedures and restrictions.

(3) The operator shall ensure that the calculation of usable fuel required by such helicopter for a flight includes -

- (a) taxi fuel;
- (b) trip fuel;
- (c) reserve fuel consisting of -
  - (i) contingency fuel as prescribed in Document NA-CATS-OPS 127;
  - (ii) alternate fuel, if a destination alternate is required;
  - (iii) final reserve fuel;
  - (iv) additional fuel, if required by the type of operation; and

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(d) extra fuel, if required by the pilot-in-command.

(4) The operator shall ensure that in-flight replanning procedures for calculating usable fuel required when a flight has to proceed along a route or to a destination 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 is required, including selection of the departure heliport as the destination alternate;
  - (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.

# Fuel and oil supply

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**127.07.11** The operator of a commercial air transport helicopter shall establish a procedure to ensure that in-flight fuel checks and fuel management are carried out.

# Instrument approach and departure procedures

**127.07.12** The operator of a commercial air transport helicopter may implement instrument approach and departure procedures other than instrument approach and departure procedures referred to in subregulation 91.07.12, if required: Provided that such instrument approach and departure procedures have been approved by -

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

### Noise abatement procedures

**127.07.13** (1) The operator of a commercial air transport helicopter shall establish operating procedures for noise abatement.

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

# Carriage of infants and children

**127.07.14** (1) The operator of a commercial air transport helicopter shall ensure that an infant is only carried when properly secured with a child restraint device or in the arms or on the lap of an adult passenger or in a skycot: Provided that, in the case of a skycot, the skycot is -

(a) restrained so as to prevent it from moving under the maximum accelerations to be expected in flight; and

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 (b) fitted with a restraining device so as to ensure that the infant will not be thrown from such skycot under the maximum accelerations to be expected in flight.

(2) An operator shall ensure that precautions are taken to ensure that, at the times seat belts are required to be worn in flight, the infant carried in the skycot will be secured by a restraining device so that it will not be thrown from such skycot under the maximum accelerations to be expected in flight.

(3) Infants shall not be seated in front of exits.

(4) Infants shall not be carried behind a bulkhead unless a child restraint device is used during critical phases of flight and during turbulence.

(5) Skycots may not be used during critical phases of flight.

(6) Skycots shall not be positioned in such a way that they prevent or hinder the movement of adjacent passengers or block exits.

(7) When an infant is carried in the arms or on the lap of a passenger, the seat belt, when required to be worn, shall be fastened around the passenger carrying or nursing the infant, but not around the infant.

(8) When an infant is carried in the arms or on the lap of a passenger the name of the infant shall be bracketed on the passenger list with the name of the person carrying or nursing the infant.

(9) An infant may be seated in a car-type infant seat, approved for use in a helicopter, which is secured to the helicopter seat.

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(10) A car-type infant seat referred to in subregulation (8) shall

not be located in the same row or a row directly forward or aft of an emergency exit.

### Carriage of persons with a disability

**127.07.15** (1) The operator of a commercial air transport aeroplane shall establish procedures, including identification, seating positions and handling in the event of an emergency, for the carriage of persons with a disability.

- (2) The operator shall ensure that -
  - (a) the pilot-in-command of the helicopter is notified whena person with a disability is to be carried on board;
  - (b) a person with a disability is not seated in the helicopter 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 person with a disability and his or her able-bodied assistant, appropriate to the needs of such person; and
  - (d) the person giving the briefing shall enquire as to the most appropriate manner of assisting the person with a disability so as to prevent pain or injury to that person.
- (3) In the case of the carriage of a stretcher patient in the heli-

(a) the stretcher shall be secured in such helicopter so as

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to prevent it from moving under the maximum accelerations likely to be experienced in flight and in an emergency alighting such as a ditching;

- (b) the patient shall be secured by an approved harness to the stretcher or helicopter structure; and
- (c) an able-bodied assistant shall accompany each stretcher patient.

(4) A mentally disturbed person shall not be carried in of the helicopter unless -

- (a) accompanied by an able-bodied assistant; and
- (b) a medical certificate has been issued by a medical practitioner certifying such mentally disturbed person's suitability for carriage by air, and confirming that there is no risk of violence from such person.

(5) The operator shall only undertake the carriage of a mentallyill person, who according to his or her medical history may become violent, 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 then he or she shall be accompanied by an able-bodied assistant.

### Limitations on the carriage of infants, children and persons with disabilities

**127.07.16** (1) The maximum number of persons with a disability, unaccompanied minors or the combination of persons with a disability and unaccompanied minors which may be carried by the operator of a commercial air transport helicopter, is limited to one per unit of 20 passenger capacity or part thereof to a maximum of 10 such persons or minors.

(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 of the safety of such persons or minors: Provided that the persons with a disability can assist themselves.

(3) In addition to the provisions of subregulation (2), for each one person with a disability who cannot assist himself or herself an able-bodied assistant shall be assigned to solely assist such person.

(4) The operator may establish procedures, other than the procedures referred to in subregulations (1) and (2), for the carriage of infants, children and persons with a disability: Provided that such procedures -

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(a) do not jeopardise aviation safety; and

(b) prior written approval is obtained from the Director.

### Carriage of inadmissible passengers, deportees or persons in custody

**127.07.17** (1) The operator of a commercial air transport helicopter shall establish procedures for the transportation 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 reason for carriage, of any of the persons referred to in subregulation (1).

(3) For the purposes of this regulation, "inadmissible passengers" means any person who is not entitled to board the helicopter and includes those persons who are not in the possession of a valid passenger ticket, passport or visa.

### **Carry-on baggage**

**127.07.18** (1) The operator of a commercial air transport helicopter shall establish adequate procedures to ensure that only such carry-on 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 NA-CATS-OPS 127.

### Securing of passenger cabin and galley

**127.07.19** (1) Before take-off and landing and whenever deemed necessary in the interest of safety, the pilot-in-command of a commercial air transport helicopter shall ensure that -

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- (a) all equipment, baggage and loose articles in the cabin of the helicopter, including passenger service items and crew members and passengers' personal affects, 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 inflight 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 areas" means stowage -

- (a) under a passenger seat; or
- (b) in 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-incommand of the helicopter, unless he or she has been informed of the safe condition of the cabin.

#### **Passenger services**

**127.07.20** (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 commercial air transport 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 pilotin-command of the helicopter.

(3) No items referred to in subregulation (1) which cannot be accommodated in the stowage referred to in subregulation (1), shall be permitted in the cabin of the helicopter.

(4) Securing of the cabin shall be completed by the cabin crew before approach for landing of the helicopter is commenced.

(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.

#### **Incidents and defects**

**127.07.21** (1) The operator of a commercial air transport helicopter shall establish adequate inspection and reporting procedures to ensure that defective equipment are reported to the pilot-in-command of the helicopter before take-off.

(2) The procedures referred to in subregulation (1) shall include the reporting to the operator's safety division of all incidents or the exceeding of  $\sqrt{2}$ 

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limitations that may occur while the crew are embarked on the helicopter and of defective equipment found on board.

(3) Upon receipt of the reports referred to in subregulation (2)the safety division of the operator will compile a report and submit such report on a monthly basis to the Director.

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# **SUBPART 8**

# HELICOPTER PERFORMANCE OPERATING LIMITATIONS

# Classification

**127.08.1** (1) The classification of helicopters for performance limitations purposes is prescribed in regulation 91.09.3.

(2) The operator of a commercial air transport helicopter shall ensure that -

- (a) a Class 1 helicopter is operated in accordance with the operating limitations prescribed in Division One;
- (b) a Class 2 helicopter is operated in accordance with the operating limitations prescribed in Division Two; and
- (c) a Class 3 helicopter is operated in accordance with the operating limitations prescribed in Division Three.

(3) Where specific design characteristics of an aeroplane prevents compliance with the regulations in Division One, Two or Three of this Subpart, the operator shall, notwithstanding the provisions of subregulation (2), ensure that the aeroplane is operated in accordance with such standard that a level of safety equivalent to the level of safety prescribed in the appropriate Division in this Subpart is maintained.

#### General provisions for all classes of helicopters

**127.08.2** (1) The operator of a commercial air transport helicopter shall

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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

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(b) the approved performance data contained in the helicopter flight manual referred to in regulation 91.03.2, is used to determine compliance with the requirements prescribed in the appropriate Division, supplemented as necessary with other approved data prescribed in the appropriate Division.

(2) When complying with the provisions of subregulation (1), the operator shall take account of airframe configuration, environmental conditions and the operation of systems which have an effect on performance, when appropriate.

#### **DIVISION ONE : CLASS 1 HELICOPTER**

# Applicability

**127.08.3** (1) Commercial air transport helicopters first issued with a certificate of airworthiness before 1 January 1978 and operating to helidecks, are exempt from the provisions of regulation 127.08.4(3) and 127.08.7(3)(b) until 1 April 2002: Provided that such helicopters are operated in accordance with approved procedures.

(2) Commercial air transport helicopters first issued with a certificate of airworthiness on or after 1 January 1978 and before 1 April 2002 and operating to helidecks are exempt from the provisions of regulation 127.08.4(3) and 127.08.7(3)(b) until 31 December 2009: Provided that such helicopters are operated in accordance with approved procedures.

### **Take-off**

**127.08.4** (1) The operator of a Class I helicopter shall ensure that the takeoff mass of the helicopter does not exceed the maximum certificated 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, to discontinue the take-off and stop within the rejected take-off area available; or
- (b) at or past the take-off decision point, to continue the

take-off and the climb, clearing all obstacles along the flight path by a vertical margin of at least 35 feet until the helicopter is in a position to comply with regulation 127.08.6.

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(3) The rejected take-off area referred to in subregulation 2(b) shall, for elevated heliports and helidecks, mean the elevated heliport or helideck.

(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 factored by 80 per cent.

(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.

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### Take-off flight path

**127.08.5** (1) The operator of a Class 1 helicopter shall ensure that the takeoff flight path clears all obstacles by a vertical margin of at least 35 feet in VFR and at least 35 feet plus 0.01 DR in IFR, where DR is the horizontal distance the helicopter has travelled from the end of the take-off distance available.

(2) An obstacle need not be considered if its lateral margin from the nearest point on the surface below the intended flight path exceeds 30 m or 1.5 times the overall length of the helicopter, whichever is the greater, plus

- (a) 0.15 DR for VFR operations; or
- (b) 0.30 DR for IFR operations.
- (3) Obstacles may be disregarded if they are situated beyond -
  - (a) 7R for day operations if it is assured that navigation accuracy can be achieved by reference to suitable visual cues during the climb;
  - (b) 10R for night operations if it is assured that navigation accuracy can be achieved by reference to suitable visual cues during the climb;
  - (c) 300 metres if the pilot is able to maintain the required navigation accuracy through navigation aids; and
  - (d) 900 metres in all other cases.
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(4) For the purposes of subregulation (3), "R" means the rotor

radius.

(5) Where a change of direction of more than  $15^{\circ}$  is made, verti-

cal obstacle clearance requirements are to be increased by 15 feet from the point at which the turn is initiated: Provided that such turn is not to be initiated before reaching a height of 100 feet above the take-off surface.

(6) When complying with the provisions of this regulation account shall be taken of -

- (a) the mass of the helicopter at the commencement of the take-off;
- (b) the local pressure altitude;
- (c) the ambient temperature; and
- (d) not more than 50 per cent of the reported head-wind component or not less than 150 per cent of the reported tail-wind component unless otherwise approved.

### En-route with one or more engines inoperative

**127.08.6** (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, complies with the provisions of subregulation (2) or (3) at all points along the route.

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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 an altitude of at least 1 000 feet or 2 000 feet in areas of mountainous terrain, above all obstacles along the route within 18.5 km on either side of the intended track: 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 metres on either side of the route need 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 heliport where a landing can be made in accordance with regulation 127.08.7;
  - (b) the flight path clears vertically by at least 1 000 feet or 2 000 feet in areas of mountainous terrain, all obstacles
    along the route within 18,5 km on either side of the intended track;
  - (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 metres in either side of the route need be considered.

(4) Account shall be taken of the effects of winds on the flight

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(5) When complying with the provisions of this regulation the width margins of subregulations (2) and (3) may be reduced to 9.3 kilometres if the required navigation accuracy can be achieved.

(6) In the event of any two power units becoming inoperative in the case of a helicopter having three or more power units, the helicopter shall be able to continue the flight to a suitable landing site and make a landing thereat.

### Approach and landing

**127.08.7** (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 heliport at which it is intended to land and, when required, at any alternate heliport.

(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 heliport, after clearing all obstacles in the approach path by a margin of 35 feet, be able to land and stop within the touch-down area 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,

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at the destination and at any alternate heliport, after clearing all obstacles in the approach path by a margin of 35 feet, be able to land and stop within the touchdown area available.

(c) For the purpose of subregulation (b), touch-down area available shall, if applicable, mean an elevated heliport or helideck.

(3) 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.

(4) 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.

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# **DIVISION TWO : CLASS 2 HELICOPTER**

# General

**127.08.8** (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 therefrom that 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 heliports in built-up urban areas.

# **Take-off**

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**127.08.9** (1) The operator of a Class 2 helicopter shall ensure that the takeoff mass of the helicopter does not exceed the maximum mass specified for a rate of climb for the pressure altitude and ambient temperature at the heliport 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 it is in a position to comply with regulation 127.08.11.

(2) The operator shall ensure that for an elevated heliport, the take-off mass is such that the helicopter is capable of -

(a) rejecting the take-off and landing on the elevated heliport; or

(b) continuing the take-off and clearing the elevated heli-

port until it is in a position to comply with regulation 127.08.11 or to carry out a safe forced landing.

(3) In complying with the provisions of subregulation (2), ac-

count shall be taken of -

- (a) the pressure altitude at the elevated heliport;
- (b) the ambient temperature at the elevated heliport;
- (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 factored by 80 per cent.

(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.

# Take-off flight path

**127.08.10** (1) The operator of a Class 2 helicopter shall ensure that the takeoff flight path clears all obstacles by a vertical margin of at least 35 feet in VFR and at least 35 feet plus 0.01 DR in IFR, where DR is the horizontal distance the helicopter has travelled from the end of the take-off distance available.

(2) An obstacle need not be considered if its lateral margin from

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the nearest point on the surface below the intended flight path exceeds 30 m or 1.5 times the overall length of the helicopter, whichever is greater, plus -

- (a) 0.15 DR for VFR operations; or
- (b) 0.30 DR for IFR operations.
- (3) Obstacles may be disregarded if they are situated beyond -
  - (a) 7R for day operations if it is assured that navigation accuracy can be achieved by reference to suitable visual cues during the climb;
  - (b) 10R for night operations if it is assured that navigation accuracy can be achieved by reference to suitable visual cues during the climb;
  - (c) 300 metres if the pilot is able to maintain the navigation accuracy through navigation aids; and
  - (d) 900 metres in all other cases.
- (4) For the purposes of subregulation (3), "R" means the rotor

(5) Where a change of direction of more than 15° is made, vertical obstacle clearance requirements are to be increased by 15 feet from the point at which the turn is initiated: Provided that such turn is not to be initiated before reaching a height of 100 feet above the take-off surface.

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(6) When complying with the provisions of this regulation ac-

count shall be taken of -

- (a) the mass of the helicopter at the commencement of the take-off;
- (b) the pressure altitude at the heliport;
- (c) the ambient temperature at the heliport; and
- (d) not more than 50 per cent of the reported head-wind
   component or not less than 150 per cent of the reported
   tail-wind component unless otherwise approved.

### En-route with one or more engines inoperative

**127.08.11** (1) The operator of a Class 2 helicopter shall ensure that the oneengine inoperative en-route flight path, appropriate to the meteorological conditions expected for the flight complies with 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 an altitude of at least 1 000 feet or 2 000 feet in areas of mountainous terrain, above all obstacles along the route within 18.5 km on either side of the intended track;

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- (b) when it is intended at the flight will be conducted by day, VMC and in sight of the surface, only obstacles within 900 metres on either side of the route need be considered.
- (3) The operator shall ensure that -
  - (a) the flight path shall permit the helicopter to continue flight from the cruising altitude to a height of 1 000 feet above the heliport where a landing can be made in accordance with regulation 127.10.12;
  - (b) the flight path clears vertically by at least 1 000 feet or
     2 000 feet in areas of mountainous terrain, all obstacles
     along the route within 18,5 kilometres on either side of
     the intended track;
  - (c) the engine is assumed to fail at the most critical point along the route; and
  - (d) when it is intended that the flight will be conducted by day, VMC and in sight of the surface, only obstacles within 900 metres on either side of the route need be considered.
- (4) Account shall be taken of the effects of winds on the flight
  - (5) In complying with the provisions of this regulation the width

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margins of subregulations (2) and (3) may be reduced to 9.3 kilometres if the required navigation accuracy can be achieved.

# Landing

**127.08.12** (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 heliport at which it is intended to land, and at the alternate heliport, which shall allow the helicopter in the event of the critical power unit becoming inoperative before the specified landing decision point after clearing all approaches path by a safe margin to either land and stop within the touch-down area available or to perform a balked landing and clear all obstacles in the flight path by a margin of 35 feet.

(2) Since 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 therefrom, that permit a safe forced landing to be executed in the event of an engine failure.

(3) When determining the landing mass for elevated heliports,the landing mass shall be such that the helicopter is capable of -

- (a) landing on the elevated heliport; or
- (b) rejecting the landing and clearing the elevated heliport, thereafter continuing the flight or carrying out a safe forced landing.

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(4) In complying with the provisions of subregulation (3)(b),

account shall be taken of -

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- (a) the pressure altitude of the elevated heliport;
- (b) the expected air temperature at the elevated heliport;
- (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 THREE : CLASS 3**

### General

**127.08.13** (1) The operator of a Class 3 helicopter shall ensure that operations are only conducted in conditions of weather and light, and from those heliports and over such routes and diversions therefrom, that 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 heliports in built-up urban areas.

### **Take-off**

**127.08.14** (1) The operator of a Class 3 helicopter shall ensure that the takeoff mass of the helicopter does not exceed the maximum 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 purpose of this regulation, hover inside ground effect performance data shall include 17 knot wind accountability.

(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 it is in a position to comply with regulation 127.08.15.

# **En-route**

127.08.15 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  $\lesssim$ 

planned diversion without flying at any point below the appropriate minimum flight altitude.

# Landing

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**127.08.16** (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 destination and at any alternate, if required.

(2) For the purpose of this regulation, hover inside ground effect performance data, shall include 17 knot wind accountability.

(3) With all engines operating, the helicopter shall, at the destination and at any alternate, after clearing all obstacles in the approach path by a safe margin, be able to land and stop within the touch-down area available or to perform a balked landing and clear all obstacles in the flight path by a margin of 35 feet.

# SUBPART 9 MAINTENANCE

General

**127.09.1** The operator of a commercial air transport helicopter shall not operate the helicopter unless such helicopter is maintained in accordance with the regulations in Part 43.

#### Helicopter maintenance schedule

**127.09.2** (1) The operator of a commercial air transport helicopter shall ensure that the helicopter is maintained in accordance with a helicopter maintenance schedule established by the operator.

(2) The programme shall contain details, including frequency, of all maintenance required to be carried out on the helicopter.

(3) The programme shall include a reliability programme if the Director determines that such a reliability programme is necessary.

(4) The helicopter maintenance programme referred to in subregulation (1) and any subsequent amendment thereof shall be approved by the Director.

#### Maintenance contracted out to an approved aircraft maintenance organisation

**127.09.3** If maintenance on a commercial air transport helicopter 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

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