



GOVERNMENT GAZETTE

OF THE

REPUBLIC OF NAMIBIA

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Government Notice

MINISTRY OF WORKS AND TRANSPORT

No. 11

2024

AMENDMENT OF NAMIBIAN CIVIL AVIATION REGULATIONS: CIVIL AVIATION ACT, 2016

Under sections 54 to 57 of the Civil Aviation Act, 2016 (Act No. 6 of 2016), and after consultation with the Board of Directors of the Namibia Civil Aviation Authority, I have –

- (a) amended the Namibia Civil Aviation Regulations, 2001 as set out in the Schedule; and
- (b) determined that the regulations come into operation eight months after the date of publication of this notice.

J. MUTORWA
MINISTER OF WORKS AND TRANSPORT

Windhoek, 29 January 2024

SCHEDULE

Definitions

1. In these regulations a word or an expression to which a meaning has been assigned in the Civil Aviation Act, 2016 (Act No. 6 of 2016) has that meaning and unless the context indicates otherwise - “the Regulations” means the Namibian Civil Aviation Regulations Published under Government Notice No. 1 of 2 January 2001 as amended by Government Notice No. 57 of 1 April 2006, Government Notice No. 201 of 1 November 2006, Government Notice No. 80 of 4 April 2017, Government Notice No. 210 of 31 August 2018, Government Notice No. 293 of 8 November 2018, Government Notice No. 409 of 30 December 2019, Government Notice No. 410 of 30 December 2019, Government Notice No. 89 of 27 March 2020, Government Notice No. 112 of 30 April 2020, Government Notice No.236 of 30 September 2020, Government Notice No. 137 of 30 June 2021, Government Notice No. 90 of 31 March 2022, Government Notice No. 294 of 30 September 2022, Government Notice No. 137 of 31 March 2023 and Government Notice No. 178 of 26 June 2023.

Amendment of Regulation 1.00.1 of the Regulations

2. Regulation 1.00.1 of the Regulations is amended by –
- (a) the insertion after the definition of “air side” of the following definition:
““Air Service Act” means the Air Service Act,1949 (Act No.51 of 1949);”;
 - (b) the insertion after the definition of “area control service” of the following definition:
““Article 83bis agreement” means an agreement signed between contracting states in terms of Article 83bis of the Chicago Convention;”;
 - (c) “the insertion after the definition of “contained runway” of the following definition:
““contracting state” means a state which has consented to be bound by the Chicago Convention;”;
 - (d) the insertion after the definition of “Document NAM-CATS-GMR” of the following definition:
““Document NAM-CATS-LA 48” means a document on the Namibian Civil Aviation Technical Standards relating to Leasing of Aircraft, which is published by the Executive Director in terms of section 227 of the Act;”
 - (e) by the deletion of the defenition “pilot” and “pilot flying (PF)”;
 - (f) by the insertion of the following definitions after the definition of “period of operational duty”:
““pilot” when used as a verb means to manipulate the flight controls of an aircraft during flight time;
“pilot flying” means the pilot whose primary task is to control and manage the flight path, and the secondary tasks of the pilot flying are to perform non-flight path related actions such as radio communications, aircraft systems, other operational activities and to monitor other crew members;
“pilot-in-command” means the pilot responsible for the operation and safety of the aircraft during flight time;”;

Insertion of Part 48 in Regulations

3. The Regulations are amended by the insertion after Part 47 of the following Part:

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**SUBPART 1
GENERAL****Application**

- 48.01.1** This Part applies –
- (a) to all aircraft lease agreements involving Namibian air service operators, Namibian registered aircraft and foreign registered aircraft operated by Namibian air service operators;
 - (b) with the necessary changes to any dry lease agreement where either the lessor or the lessee is a Namibian entity but not an air service operator; or

- (c) with the necessary changes to any sub-lease agreement.

SUBPART 2 FINANCIAL OR CAPITAL LEASES

Filing of lease agreement

48.02.1 (1) A Namibian operator, who enters into a financial or capital lease agreement as lessee in respect of an aircraft, must –

- (a) provide the Executive Director with a certified copy of such lease agreement; and
- (b) comply with the provisions of the Convention on International Interests in Mobile Equipment on Matters Specific to Aircraft Equipment signed at Cape Town on 16 November 2001, where applicable.

(2) An aircraft, acquired on a financial or capital lease, to be used for the provision of an air service, –

- (a) is considered to be on a dry lease, and the provisions of Regulation 48.03.1 apply with the necessary changes; and
- (b) must be placed on the Namibia Register of Aircrafts, if not already so registered in accordance with the provisions of Part 47 of these regulations.

SUBPART 3 OPERATING LEASES

Dry lease-in

48.03.1 (1) An operator who intends to dry lease-in an aircraft for the purpose of providing an air service, must submit an application on the form provided for in Document NAM-CAT-LA 48, signed by both parties, together with the fee referred to in Part 187 of these regulations to the Executive Director for prior approval to dry lease-in such aircraft.

(2) The oversight responsibilities in respect of a dry lease-in of a foreign registered aircraft may be fully or partially transferred in terms of an Article 83*bis* agreement referred to in Subpart 6 from the appropriate authority of the state of registry to the Authority.

(3) The Executive Director may, subject to the conditions as he or she may determine, grant a dry lease-in agreement contemplated in subregulation (1) if he or she is satisfied that –

- (a) an aircraft to be dry leased-in is type-certificated in accordance with the requirements referred to in Part 21 of these regulations;
- (b) the aircraft to be dry leased-in is maintained in accordance with an approved maintenance programme, the design and application of which must observe human factors principles, and current manufacturer's maintenance manual;
- (c) an aircraft to be dry leased-in is operated under an operating certificate held by a concerned lessee and an applicant may not operate an air service concerned contrary to the provisions of the Act or the Air Services Act;
- (d) in case of a foreign registered aircraft –

- (i) if the transfer of responsibilities, as contemplated in subregulation (2) of a foreign aircraft have not been fully effected ;
 - (ii) an appropriate authority of a state of registry is able to carry out its oversight responsibilities effectively;
 - (iii) the duration of a dry lease-in agreement is for a period not exceeding six consecutive calendar months in any 12-months period calculated from the date of commencement of such dry lease-in agreement; and
 - (iv) the number of foreign registered aircraft leased by a concerned operator constitutes not more than half the number of aircraft listed on that operator's operating certificate.
- (4) If the conditions, contemplated in subregulation (3)(d), are not met, the aircraft to be dry leased-in must be registered in Namibia as contemplated in Part 47 of these regulations, and –
- (a) the aircraft be subject to the airworthiness certification, maintenance, and inspection procedures provided by these regulations in respect of Namibian registered aircraft;
 - (b) the responsibility or custody of the aircraft and control of all operations is vested in the lessee operator;
 - (c) the responsibility for the airworthiness and maintenance of the aircraft is vested in the lessee operator; and
 - (d) the registration of the aircraft is valid only for the duration of the lease agreement, and for as long as the aircraft is operated in accordance with –
 - (i) these regulations;
 - (ii) the terms or conditions specified in the lessee operator's operating certificate;
 - (iii) the related operations specifications; and
 - (iv) the lessee operator's operations and maintenance control manuals.
- (5) The conditions for granting an application referred to in subregulation (3) must be made part of the lease agreement and must specify the responsibilities of the parties involved in respect of –
- (a) airworthiness of the aircraft and performance of maintenance;
 - (b) signing the maintenance release;
 - (c) flight and cabin crew member certification;
 - (d) crew member training, competency and currency;
 - (e) scheduling of crew members;
 - (f) dispatch or flight-following; and
 - (g) insurance arrangements.

(6) A dry lease agreement between Namibian operators must include the arrangements concerning each party's respective responsibilities in respect of the airworthiness of the aircraft.

Dry lease-out

48.03.2 (1) An operator of a Namibian registered aircraft may dry lease-out the aircraft to any other Namibian operator (lessee), subject to the provisions of subregulation (2).

(2) A dry lease-out agreement of a Namibian registered aircraft, dry leased-out in terms of subregulation (1), must include the confirmation of the parties respective responsibilities in the agreement in respect of the continued airworthiness of the aircraft and that the aircraft will be operated in terms of the operating certificate held by the lessee.

(3) An operator of a Namibian registered aircraft may dry lease-out an aircraft to any other operator in a contracting state.

(4) The Executive Director may, upon application on the form provided for in Document NAM-CATS-LA 48, by an operator (lessor) of a Namibian registered aircraft, remove such aircraft from the operating certificate held by such operator.

(5) The removal, contemplated in subregulation (4), in respect of an aircraft to be dry-leased-out to an operator in a contracting state, is on condition that –

- (a) the appropriate authority of the state of the operator to whom such aircraft is dry leased-out concludes an Article 83*bis* agreement with the Minister, in which such authority accepts responsibility for the surveillance of maintenance and operation of such aircraft in terms of the applicable requirements in Subpart 6; and
- (b) such aircraft is maintained in accordance with an approved maintenance schedule and current manufacturers maintenance manual.

(6) If a Namibian registered aircraft is dry leased-out to an operator in a state that is not a contracting state, the Minister may not transfer responsibility for surveillance of the maintenance and operation of the aircraft to the appropriate authority of such state, and the lessor operator is liable for –

- (a) any costs incurred by the Authority in carrying out its oversight function in respect of such aircraft;
- (b) any such costs in respect of an aircraft for which no transfer of responsibilities, as contemplated in subregulation (5)(a), has been agreed upon.

(7) The provisions of subregulation (5) and (6) apply with the necessary changes in respect of a dry leased-out aircraft remaining on the operating certificate of the lessor.

Wet lease-in

48.03.3 (1) A Namibian operator who intends to wet lease-in an aircraft for the purpose of providing an air service, must –

- (a) be the holder of an air service licence and operating certificate applicable to the category and type of aircraft, as defined in the Air Services Act; and
- (b) submit an application on the form provided for in Document NAM-CATS-LA 48, signed by both parties, together with the fee referred to in Part 187, to the Executive Director for prior approval to wet lease-in such aircraft.

(2) The duration of the wet lease-in agreement, in respect of a foreign-registered aircraft, is limited to a maximum period of six consecutive calendar months in any 12-months period calculated from the date on which the Executive Director approves such wet lease-in agreement.

(3) The Executive Director may, subject to such conditions as he or she may determine grant a wet lease-in agreement approval referred to in subregulation (1)(b), if such aircraft –

- (a) is from an operator who is the holder of an operating certificate or similar document issued by an appropriate authority;
- (b) has been type-certificated by an appropriate authority;
- (c) has been issued with a valid certificate of airworthiness or similar document issued by an appropriate authority;
- (d) is maintained and operated in accordance with safety standards equivalent to the safety standards referred to in these regulations in respect of aircraft operated in a commercial air transport operation; and
- (e) is operated in terms of the operating certificate or similar document held by the lessor, on condition that, if the operator concerned is a foreign operator, the appropriate authority of the State of Registry concludes an Article 83*bis* agreement with the Minister in which it is agreed that a wet leased-in aircraft must be operated in terms of the operating certificate of a Namibian lessee, and that certain specified oversight responsibilities be transferred from that authority to the Executive Director.

(4) The lessee must –

- (a) satisfy the Executive Director that the safety standards of the lessor are not less than the applicable safety standards referred to in these regulations; and
- (b) ensure that any law applicable to the aircraft to be wet leased-in and the maintenance or operation of such aircraft is complied with.

(5) The total number of wet leased-in aircraft, either foreign or Namibian registered, may not constitute more than half the number of aircraft listed on the operating certificate of an operator referred to in subregulation (1).

(6) The conditions under which a wet lease-in agreement is granted by the Executive director as contemplated to in subregulation (3) must be part of the lease agreement between the lessor and the lessee.

(7) If an agreement, contemplated in sub-regulation (3)(e), has been concluded, such agreement must be formally registered with the Council of ICAO and the appropriate authority of a third state affected by such agreement must be notified.

Wet lease-out

48.03.4 (1) A Namibian operator of a Namibian registered aircraft who intends to wet lease-out an aircraft to any non-Namibian operator, if the non-Namibian operator is licensed in a non-contracting state, must remain the operator of the aircraft in terms of his or her operating certificate, and the responsibility for the surveillance of maintenance and operation of such aircraft may not be transferred to the appropriate authority of the state of the operator to which such aircraft is wet leased-out to.

(2) The provisions of regulation 48.03.2(6) in respect of the cost of oversight by the Authority apply with the necessary changes.

(3) Subject to subregulation (5), a Namibian operator of a Namibian registered aircraft may wet lease-out an aircraft to any non-Namibian operator in a contracting state.

(4) The Executive Director may, upon application on the form provided for in Document NAM-CATS-LA 48, by a Namibian operator referred to in subregulation (3), remove a Namibian registered aircraft from the operating certificate held by such operator, on condition that –

(a) the appropriate authority of the State of the Operator to whom such aircraft is wet leased has in writing accepted, responsibility for the surveillance of the maintenance and operation of such aircraft, as provided for in an Article 83*bis* agreement; and

(b) such aircraft is maintained in accordance with an approved maintenance schedule.

(5) A non-Namibian licensed lessee operator may only use a wet lease-out a Namibian registered aircraft, in commercial air transport operations to and from Namibia if the lessee operator has the underlying traffic rights to enter Namibia.

(6) A Namibian registered aircraft wet leased-out to a foreign operator does not need to be listed on such foreign operator's permit of lease.

(7) A Namibian operator, intending to wet lease-out a Namibian registered aircraft to another Namibian operator must submit an application on the form provided for in Document NAM-CATS-LA 48, signed by both parties, together with the fee referred to in Part 187, to the Executive Director for prior approval to wet lease-out the aircraft.

(8) Any conditions specified in granting a approval referred to in subregulation (7) must be incorporated by the operator's into the wet lease-out agreement.

(9) Despite subregulations (7) and (8), the Executive Director may provide any Namibian operator with a list of Namibian operators from whom an aircraft may be wet leased-out by such operator without prior approval.

(10) A Namibian operator who agrees to wet lease-out an aircraft to another Namibian operator must remain the operator of the aircraft and must retain the functions and responsibilities specified in his or her operating certificate.

(11) Despite subregulation (10), the lessee operator who in terms of the Air Services Act is required to be actively and effectively in control of the air service must ensure that the lessor operator adheres to the conditions of the latter's operating certificate and its operating specifications, which conditions may not be in conflict or less than the conditions of the lessee operator's operating certificate.

(12) The terms of an approved wet lease agreement between Namibian operators must include –

(a) the arrangement concerning the operating certificate under which the flights with the leased aircraft must be operated; and

(b) any deviation from the operating certificate under which the flights with the leased aircraft must be operated.

Damp lease

48.03.5 (1) If an aircraft is damp leased with only a partial crew of either flight or cabin crew the provisions of regulations –

- (a) 48.03.3 and 48.03.4 apply with the necessary changes in respect of the crew provided as part of the lease; and
- (b) 48.03.1 and 48.03.2 apply with the necessary changes in respect of the aircraft provided by the lessee.

(2) The cabin or flight crew members provided by the lessee for the operation must undergo the standard operating procedures training of the lessor prior to the commencement of any commercial air transport operation.

**SUBPART 4
SUB-CHARTERS****Sub-charters**

48.04.1 (1) In exceptional circumstances provided for in Documents NAM-CATS-LA 48, an operator may sub-charter an aircraft with or without flight crew provided –

- (a) the sub-charter period does not exceed five consecutive days; and
- (b) the sub-charterer informs the Executive Director, within 24 hours of such sub-charter.

(2) In the case of Part 121 operations, the provisions of subregulation (1) apply only to wet lease operations.

**SUBPART 5
INSURANCE****Insurance**

48.05.1 Any reference to insurance in this Part means a reference to the compulsory insurance in terms of the Air Services Act and the Act.

**SUBPART 6
TRANSFERS OF RESPONSIBILITIES BETWEEN STATES****Article 83bis agreement**

48.06.1 (1) The Minister, being duly authorised, may in the case of dry or wet leased aircraft enter into an Article 83bis agreement in accordance with the requirements contained in this Subpart for the transfer of certain or all the functions and duties from the state of registry of an aircraft to the state of operator, if such functions and duties can more adequately be discharged by the state of the operator and register such agreement of transfer with the Council of ICAO.

(2) The functions and duties, referred to in subregulation (1) are the functions and duties allocated by the Chicago Convention to the state of registry in respect of –

- (a) Article 12 which provides for Rules of the Air;

- (b) Article 30 which provides for Aircraft radio equipment;
 - (c) Article 31 which provides for Certificates of Airworthiness; and
 - (d) Article 32 which provides for Licences of Personnel.
- (3) The transfer of any function or duty contemplated in subregulation (1) becomes effective in respect of any other contracting state after –
- (a) the Article 83*bis* agreement between the states, has been registered with the Council of ICAO and made public as required in Article 83*bis*; or
 - (b) the existence and scope of the Article 83*bis* agreement have been directly communicated by the state party to the agreement to the appropriate authorities of the other contracting state or states concerned.
- (4) The Minister may accept certain or all of the functions and duties of the appropriate authority of a state of registry in respect of an aircraft on that state's aircraft register as contemplated in subregulation (1) to the extent provided for in the relevant Article 83*bis* agreement, and consider such aircraft to be a Namibian aircraft for the purpose of these regulations.
- (5) If Namibia is a state of an operator with respect to a dry lease-in or wet lease-in of an aircraft operating under an Article 83*bis* agreement, the Executive Director must transmit a copy of such Article 83*bis* agreement together with a summary of such agreement in the format provided for in Document NAM-CATS-LA 48, to the ICAO for registration.

Personnel licensing

- 48.06.2** (1) A Namibian air services operator who dry leases-in a foreign aircraft must satisfy the Executive Director that –
- (a) the flight and cabin crew to be designated for duty on the aircraft already possess valid licences or approvals issued by the state of registry, or that arrangements have been made for such personnel to obtain the necessary licences or approvals; and
 - (b) ensure that all the regulations of the state of registry in respect of personnel licensing and the allocation, training and checking of flight and cabin crew have been complied with.
- (2) If there is reasonable belief that the lessee operator is not complying with the appropriate regulations of the state of registry, as contemplated in subregulation (1)(b), the appropriate authority of that state must be advised and a request made to such authority for the matter to be investigated.
- (3) The Minister may in terms of an Article 83*bis* agreement, take responsibility for oversight of the matters contemplated in subregulation (1)(b).
- (4) The Executive Director may, on conditions he or she determines, issue validations to a lessee operator's flight and cabin crew members, designated for duty in respect of a Namibian aircraft dry leased-out to a foreign operator.
- (5) A validation, contemplated in subregulation (4), may be issued in the format provided for in Document NAM-CATS –LA 48.

Airworthiness

48.06.3 (1) A Namibian air services operator who dry leases-in a foreign aircraft must satisfy the Executive Director that –

- (a) the AMO, responsible for the continued airworthiness of the aircraft, already possesses valid licences or approvals issued by the State of Registry, or that arrangements have been made for such organisation to obtain the necessary licences or approvals; and
- (b) the organisation, contemplated in paragraph (a), carries out its maintenance functions in accordance with all the relevant regulations of the state of registry.

(2) If the lessee operator is not complying with the relevant regulations of the state of registry, the appropriate authority of that state must be advised and a request made to such authority for the matter to be investigated.

(3) The Minister may in terms of an Article 83*bis*, take responsibility for the oversight of the matters contemplated in subregulation (1)(b).

(4) The Executive Director may, in respect of an aircraft, dry leased-out to a foreign operator, and on such conditions as he or she determine, grant a foreign-based AMO to carry out all or part of the maintenance on the aircraft referred to in subregulation (1), in accordance with the aircraft's approved maintenance schedule and remove the aircraft from the Namibia Register of Aircrafts for the duration of the dry lease-out period and facilitate such aircrafts registration in the state of the operator.

Recognition

48.06.4 (1) The Executive Director must recognise an Article 83*bis* agreement between two contracting states that have ratified Article 83*bis* in which the state of the operator is substituted for the state of registry, within the limits established by the transfer arrangements, provided that –

- (a) the Article 83*bis* agreement has been duly registered with ICAO for registration; or
- (b) the affected third-party states have been informed directly by at least one of the states party to the Article 83*bis* agreement.

(2) The Executive Director may not recognise the transfer of functions and duties contemplated in an Article 83*bis* agreement –

- (a) between such states are not parties to an Article 83*bis* agreement or if states that are parties to such agreement, but have not registered such agreement with ICAO; and
- (b) if Namibia has not been informed directly by at least one of the state parties to the Article 83*bis* agreement, of such transfer.

(3) The Executive Director must recognise the validity of licences and certificate if contracting states that have ratified an Article 83*bis* agreement, have transferred the authority to render valid or to renew crew licences, radio licences and certificates of airworthiness in terms of an Article 83*bis* agreement from the state of registry to the state of the operator, if he or she has been officially informed of such transfer, provided that these licences and certificates have been issued, rendered valid or renewed by the appropriate authority of the state of the operator and fully meets the requirements of Annexes 1 and 8 to the Convention.

Transfer of responsibilities

48.06.5 (1) The Article 83*bis* agreement must specifically mention the functions and duties to be transferred and those functions not mentioned will be considered to remain with the state of registry.

(2) A listing of responsibilities regarding airworthiness that may or may not be transferred between states is contained in Document NAM-CATS-LA 48.

(3) If an Article 83*bis* agreement has been concluded, the state of registry is relieved of responsibility and, where applicable, of liability in respect of the functions and duties duly transferred to the appropriate authority of the state of operator and such authority must apply these regulations.

(4) The Ministry must ensure that relevant information concerning the existence of an Article 83*bis* agreement relating to aircraft operating to or from Namibia's territory is without delay relayed to any Namibian authority involved in the inspection of documents required to be carried on board an aircraft.

(5) For the purpose of identifying the individual states' responsibility for safety oversight when any verification process, such as ramp inspections, a certified true copy of the Article 83*bis* Agreement and of the operating certificate under which the aircraft is operated and in which such responsibility it is listed must be carried on board the aircraft at all times while the Article 83*bis* agreement is in force.

(6) Document NAM-CATS-LA 48 contains examples of suitable Article 83*bis* agreements.

Operations under Article 83 *bis*

48.06.6 (1) An operator of an aircraft operating under an Article 83*bis* agreement must ensure that a certified copy of such Article 83*bis* agreement summary referred to in regulation 48.06.1 and an english translation where such agreement summary is issued in a language other than english is carried on board such aircraft.

(2) An operator of an aircraft operating under an Article 83*bis* agreement must on request by an authorised officer, inspector or authorised person, make such Article 83*bis* agreement summary available in order to determine which functions and duties have been transferred under such agreement by a state of registry to a state of an operator, when conducting surveillance activities, such as ramp checks.

Substitution of Part 91 of Regulations

4. The Regulations are amended by the substitution for Part 91 of the following Part:

PART 91: GENERAL AVIATION AND OPERATING FLIGHT RULES

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SUBPART 1 GENERAL PROVISIONS

Applicability

- 91.01.1** (1) Subject to the provisions of subregulation (2), this Part applies to –
- (a) aircraft operated within Namibia whether registered in Namibia or in a foreign country;
 - (b) aircraft registered in Namibia and operated internationally;
 - (c) persons acting as crew members of aircraft registered in Namibia;
 - (d) persons who are on board an aircraft operated under this Part; and
 - (e) crew members licensed in terms of these regulations whether operating a Namibian or foreign registered aircraft.
- (2) Additional rules to, and exemptions from, the provisions of this Part are prescribed in respect of –
- (a) the conveyance of dangerous goods in Part 92;
 - (b) operating of powered paragliders and paratrikes in Part 98;
 - (c) operating of gyroplanes in Part 100;
 - (d) operation of remotely piloted aircrafts in Part 101;
 - (e) operating of three balloons and airship in Part 102;
 - (f) operating of microlight aircraft in Part 103;
 - (g) operating of microlight aircraft in Part 103;
 - (h) operation of gliders in Part 104;
 - (i) operating of hang gliders paragliders in Part 106;
 - (j) operating of Amateur-built aircraft Part 107;
 - (k) operating of light sport aircraft and non type certified aircraft above 450 kg maximum certified take off mass;

- (l) aeroplanes engaged in commercial air transport operations carrying 20 or more passengers in Part 121;
- (m) helicopters engaged in commercial air transport operations in Part 127;
- (n) helicopters engaged in external-load operations in Part 133;
- (o) aeroplanes engaged in commercial air transport operations carrying 19 or fewer passengers in Part 135;
- (p) Commercial operations of balloons in Part 136; and
- (q) aircraft engaged in aerial work operations in Part 137.

Compliance with laws, regulations and procedures

91.01.2 (1) The pilot-in-command must comply with the laws, regulations and procedures of the states in which operations are conducted.

- (2) The pilot-in-command of an aircraft must –
 - (a) be familiar with the laws, regulations and procedures required for the performance of his or her duties, provided for the areas to be traversed;
 - (b) be familiar with the aerodromes to be used and the air navigation services relating to such aerodromes; and
 - (c) ensure that other members of the flight crew are familiar with the laws, regulations and procedures that are required for the performance of their respective duties in the operation of the aircraft.

(3) Subject to subregulation (4), the pilot-in-command of an aircraft must comply with the regulations contained in this Part unless they conflict with the rules published by a state having jurisdiction over the territory flown over, on condition that if any regulation under this Part is more restrictive and may be followed without violating the rules of that state, such regulation must be complied with.

(4) A pilot-in-command must, in an emergency which endangers or is likely to endanger the safety and security of the aircraft, persons on board such aircraft, or persons or property on the surface, take any action which he or she considers necessary under the circumstances.

(5) If a pilot-in-command deviates from any law, regulation or operational procedure in an emergency referred to in subregulation (4), he or she must without delay notify the appropriate authority of the state within or over the territory over which the deviation occurs.

(6) If the appropriate authority of a state within or over the territory of which the deviation referred to in subregulation (4) occurs, requests the pilot-in-command to submit a report on such deviation, the pilot-in-command must submit the report containing full details of the deviation –

- (a) to such appropriate authority, within the period specified by such appropriate authority; or
- (b) if the deviation occurred in a foreign state, to the Executive Director, within 10 days from the date on which such report is requested by the appropriate authority of such state; and

- (c) if the Executive Director has reason to believe that a foreign operator has or may engage in any act or activity that represents or could represent a safety or security hazard, the Executive Director must immediately notify such foreign air operator.

Specific approvals

91.01.3 (1) A pilot-in-command may not conduct operations for which a specific approval is required unless such approval has been issued by the Executive Director.

(2) The specific approval referred to in subregulation (1) must follow the layout and contain information listed in document NAM-CATS-OPS 91.

Authorisation of personnel to taxi aircraft

91.01.4 An owner or operator of an aircraft may not permit the taxiing of, and a person may not taxi, an aircraft on the movement area of an aerodrome unless the person at the controls of the aeroplane –

- (a) is the holder of a valid pilot license;
- (b) has received instruction in the taxiing of an aircraft from, and has been declared competent to taxi an aircraft by, the holder of a flight instructor rating or, in the case of a foreign registered aeroplane, by a person authorised by an appropriate authority;
- (c) is authorised to use the radio apparatus of the aircraft ; or
- (d) is conversant with the aerodrome layout, routes, signs, markings, lighting, air traffic service signals and instructions, phraseology and procedures, if required, and is able to conform to the standards required for safe aircraft movements at such aerodrome, provided that if radio communication is mandatory such aircraft may not enter the manoeuvring area.

Search and rescue information

91.01.5 A pilot-in-command, an owner or operator of an aircraft must ensure that all essential information concerning the search and rescue services as contemplated in Part 179, in the area over which it is intended that the aircraft will be flown, is available on board the aircraft.

Records of emergency and survival equipment carried

91.01.6 (1) An owner or operator of an aircraft must have available for immediate communication to rescue coordination centres referred to in Part 179, a list containing information regarding the emergency and survival equipment carried on board the aircraft.

- (2) The information referred to in subregulation (1) must include, as applicable –
- (a) the number, colour and type of life rafts and pyrotechnics;
 - (b) details of emergency medical supplies, water supplies; and
 - (c) the type and frequencies of the emergency portable radio equipment.

Method of carriage of persons

91.01.7 A person may not be in any part of an aircraft, during a flight which is not a part designed for the accommodation of persons, unless temporary permission has been granted by the pilot-in-command to access such part of the aircraft –

- (a) for the purpose of taking action necessary for the safety of such aircraft or of any person, animal or goods on board in such aircraft; or
- (b) in which cargo or stores are carried, except that such part of the aircraft is designed to enable a person to have access to such cargo or stores while such aircraft is in flight.

Admission to flight deck

91.01.8 (1) A person, other than the assigned flight deck crew, may not be carried on the flight deck of a Namibian registered aircraft except with the permission of the pilot-in-command.

(2) The admission of any person to the flight deck must not interfere with the operation of the aircraft.

(3) A person carried on the flight deck must be made familiar with the applicable safety equipment and relevant operational procedures.

Unauthorised carriage

91.01.9 A person may not conceal himself or herself, animals or cargo on board an aircraft.

Portable electronic devices

91.01.10 The pilot-in-command may not permit any person to use a portable electronic device on board an aircraft, including an electronic flight bag, that could adversely affect the performance of the aircraft systems and equipment or the ability of the flight crew member to operate the aircraft.

Endangering safety

91.01.11 A person may not , through any act or omission –

- (a) endanger the safety of an aircraft or any person on board such aircraft; or
- (b) cause or permit an aircraft to endanger the safety of any person or property.

Preservation of documents and records

91.01.12 The owner or operator of an aircraft who is required to retain any of the documents and records for the specified period as contemplated in Subpart 3, must retain such documents for such specified period despite such owner or operator, ceasing to be such owner or operator of such aircraft, before the expiry of such period.

Additional flight crew member equipment

91.01.13 A flight crew member assessed as fit to exercise the privileges of a licence, subject to the use of suitable correcting lenses, must have a spare set of the suitable correcting lenses readily available when exercising those privileges.

Carriage of dangerous goods

91.01.14 An owner or operator of an aircraft may not carry dangerous goods during flight time unless such goods are carried in accordance with the provisions of Part 92.

Passenger intoxication and unruly behaviour

91.01.15 (1) A person may not board an aircraft while under the influence of alcohol or any psychoactive substance such that the safety of the aircraft or its occupants is, or is likely to be, endangered.

(2) A person may not consume alcohol or any psychoactive substance while on board an aircraft if, the effects of such consumption is likely to, endanger the safety of the aircraft or its occupants.

(3) A person may not act in any manner that will, or is likely to, endanger the aircraft or its occupants.

Problematic use of psychoactive substances

91.01.16 (1) Subject to subregulation (2), a person may not, if he or she is, or is likely to be impaired by any psychoactive substance act in the capacity of any crew member, ground support, servicing or maintenance personnel or perform any function or participate in any decision-making process that could affect aviation safety.

(2) If medication that may be considered to be a psychoactive substance has been prescribed by a medical doctor, a person may undertake the duties referred to in subregulation (1) on condition that an aviation medical examiner designated in terms of Part 67 certifies the duties which may be safely accomplished by such person while taking such medication.

(3) A person who has been prescribed medication that may adversely affect performance or is otherwise of the opinion that his or her performance may be impaired through the use of medication or combinations of medication must inform the operator.

**SUBPART 2
CREW****Crew composition and qualifications**

91.02.1 (1) The number and composition of the flight crew may not be less than the number and composition specified in the aircraft flight manual or any other documents associated with the certificate of airworthiness of an aircraft.

(2) In the case of aircraft originally certified with a passenger seating capacity greater than 20 passengers and not involved in commercial air transport operations, the Executive Director may require the inclusion of cabin crew members for the safe operation of the aircraft.

(3) The complement, training and checking requirements of such flight crew and cabin crew members are provided for in Document NAM-CATS-OPS 91.

(4) The pilot-in-command must ensure that each flight crew member and, if applicable, each cabin crew member –

- (a) has maintained competency and is qualified to perform the duties assigned to him or her;
- (b) holds the appropriate valid crew licences, ratings and certificates;
- (c) has the ability to speak and understand the language used for aeronautical radiotelephony communications for the routes being flown; and
- (d) has been appropriately trained to competency in the use of airborne collision avoidance system (ACAS II) equipment and the avoidance of collision if the aeroplane is equipped with an airborne collision avoidance system (ACAS II).

(4) In the case of a multi-pilot crew, the owner or operator of an aircraft must designate one pilot among the flight crew as pilot-in-command of the aircraft and the pilot-in-command may delegate the conduct of the flight to another suitably qualified pilot.

(5) The owner or operator of an aircraft must ensure that each flight and cabin crew member meets the requirements of subregulation (3).

(6) If the Executive Director has determined the need for cabin crew members as contemplated in subregulation (2), the owner or operator of that aircraft must –

- (a) ensure each cabin crew member is seated and secured in the seat provided for under regulation 91.07.18(4) during take-off, landing or as otherwise directed by the pilot-in-command; and
- (b) ensure that each cabin crew member receives training prior to his or her first flight in that aircraft and annual recurrent training thereafter.

Crew member emergency duties

91.02.2 (1) The owner or operator of an aircraft and, where appropriate, the pilot-in-command of a multi-crew aircraft must assign to each crew member concerned, the necessary functions to be performed in an emergency or in a situation requiring emergency evacuation.

- (2) The functions referred to in subregulation (1) must –
 - (a) ensure that any reasonably anticipated emergency can be adequately dealt with; and
 - (b) take into consideration the possible incapacitation of individual crew members.

Crew member responsibilities

91.02.3 (1) A person may not act as a crew member of an aircraft –

- (a) while using any psychoactive substance which may affect his or her faculties in any manner that may jeopardise safety;
- (b) within 24 hours following scuba diving by such flight crew member;
- (c) within 48 hours following blood donation by such flight crew member;

- (d) if the crew member knows or suspects that he or she is suffering from or, having due regard to the circumstances of the flight to be undertaken, is likely to suffer from fatigue to such an extent that it may endanger the safety of the aircraft or its occupants; or
 - (e) if the crew member is in any doubt of being able to accomplish his or her assigned duties on board the aircraft.
- (2) A crew member may not –
- (a) consume alcohol less than eight hours prior to commencing standby for operational duty or commencing operational duty, which operational duty is considered to have commenced at the specified reporting time;
 - (b) commence an operational duty period while the concentration of alcohol in his or her blood, is more than 0,04 gram per 100 millilitres; or
 - (c) consume alcohol during flight duty or while on standby duty, or within eight hours after an accident or reportable incident involving the aircraft, unless the accident or incident was not related to his or her duties.
- (3) A person may not act as a flight crew member of an aircraft if, prior to each flight, the expected flight time exceeds, or is likely to exceed, the permissible aggregate –
- (a) for all flying which are –
 - (i) 100 hours, during the preceding 30 days; or
 - (ii) 1000 hours, during the preceding 12 months,
- unless otherwise specified in an approved flight and duty scheme;
- (b) in the case of flight instructors conducting ab initio or any training towards an initial rating or licence, six hours within one day, except that, for the purposes of computing flight time in meeting the limitation referred to in paragraph (a)(i), each flight hour spent in such training is considered to be one and one-half (1½) hours flight time as part of a multi-pilot crew for a flight to be undertaken wholly or partly under IFR, 100 hours during the preceding 30 days;
 - (c) 100 hours during the preceding 30 days flying as the sole pilot of an aircraft for a flight to be undertaken wholly or partly under IFR.
- (4) A person may not act as a cabin crew member of an aircraft for which the Executive Director has determined the need for cabin crew members, as provided for in regulation 91.02.1 (2), if prior to each flight the expected flight time exceeds, or is likely to exceed, the permissible aggregate of –
- (a) 300 hours, during the preceding 90 days; or
 - (b) 1000 hours, during the preceding 12 months,

unless otherwise specified in an approved flight and duty scheme.

Recency

91.02.4 (1) A pilot may not act as pilot-in-command or second-in-command of an aircraft required to be crewed by more than one pilot, carrying passengers by day, unless if –

- (a) such pilot has personally, within the 90 days immediately preceding the flight, carried out either by day or by night at least three take-offs and three landings in the same class or, if a type-rating is required, type or variant of such aircraft ; or
- (b) in the case of a helicopter such pilot has personally carried out three circuits including three take-offs and three landings in the same type of helicopter as that in which such flight is to be undertaken.

(2) The landings required under subregulation (1) may be completed in a flight simulation training device approved for that purpose for a multi-engine aircraft and in the case of a tail-wheel aircraft, each landing must be carried out to a full stop.

(3) If the take-off and landing requirements referred to in subregulation (1) have been satisfied in a multi-engine aircraft, the requirement is considered to have been met in respect of single-engine aircraft as well.

(4) A pilot may not act as pilot-in-command or second-in-command of an aircraft on an instrument approach to an aerodrome in instrument meteorological conditions unless the pilot has, within the 90 days immediately preceding such approach procedure or procedures established by the Executive Director or an appropriate authority –

- (a) executed at least two approaches in an aircraft or a flight simulation training device approved for that purpose or a combination of aircraft and flight simulation training device approved for that purpose, either under actual or simulated conditions, with reference to flight instruments only; or
- (b) undergone the appropriate skill test as provided for in Part 61.

Crew members at duty stations

91.02.5 (1) Each required flight crew member must remain at the assigned duty station during take-off and landing and during critical phases of a flight.

(2) Each flight crew member must remain at his or her station during all phases of a flight unless if –

- (a) the absence of such flight crew member is necessary for the performance of his or her duties in connection with the operation;
- (b) the absence of such flight crew member is necessary for physiological needs, provided one qualified pilot remains at the controls at all times; or
- (c) the flight crew member is taking a rest period, and a qualified relief crew member replaces him or her at the duty station.

(3) An assigned pilot-in-command must remain at his or her duty station during all phases of a flight except if during enroute cruise portion of the flight such pilot-in-Command is taking a rest period, he or she is replaced by a pilot who –

- (a) holds an appropriate type rating;
- (b) is currently qualified as a pilot-in-command or co-pilot; and
- (c) is qualified as a pilot-in-command of that aircraft during the enroute cruise portion of the flight.

(4) An assigned co-pilot must remain at his or her duty station during flight except if during the enroute cruise portion of the flight such co-pilot is taking a rest period and he or she is replaced by a pilot who is qualified to act as a pilot-in-command or co-pilot of that aircraft during the enroute operations.

(5) In the case of a single-pilot aircraft, the pilot-in-command must, during all phases of the flight, remain at the controls of the aircraft.

Duties of pilot-in-command regarding flight preparation

91.02.6 (1) The pilot-in-command of an aircraft may not commence a flight unless he or she is satisfied that –

- (a) the aircraft is airworthy, duly registered and that the appropriate certificates with respect to such aircraft are aboard that aircraft ;
- (b) the instruments and navigation, communication and other equipment required for the particular type of operation to be undertaken are installed and are serviceable and functioning correctly, except as provided for in the MEL, if any;
- (c) the mass of the aircraft at any time does not exceed the maximum certificated take-off mass calculated from the performance information provided in the aircraft flight manual referred to in regulation 91.03.2, in terms of which the operating limitations referred to in Subpart 8 are complied with;
- (d) the load carried by the aircraft is safely secured, fit to be conveyed in accordance with Part 92 and is distributed in a manner that the centre of gravity is within the limits provided for in the aircraft flight manual referred to in regulation 91.03.2;
- (e) aircraft operating limitations contained in the flight manual or its equivalent will not be exceeded;
- (f) if a ATS flight plan is required in terms of regulation 91.06.23, such ATS flight plan, has been properly completed and filed with the appropriate air traffic service unit ;
- (g) all the documents and forms required to be carried on board are carried as specified in regulation 91.03.1;
- (h) a check has been completed indicating that the operating limitations referred to in Subpart 8 will not be exceeded;
- (i) the search and rescue information, referred to in regulation 91.01.5, is available on board;
- (j) the requirements in respect of fuel, oil, oxygen, weather, minimum safe altitudes, aerodrome operating minima and availability of alternate aerodromes for the route being flown and any likely alternatives, whether flown under instrument or VFR, are complied with;

- (k) the aerodrome operating minima are not less than the operating minima of the aerodrome being operated to or from, established by the appropriate authority of the state in which the aerodrome is located, unless such appropriate authority approves lower aerodrome operating minima;
- (l) current and suitable IFR or VFR, as applicable, charts and related publications required to –
 - (i) depart the place of origin;
 - (ii) operate on the route to the destination or other route that a flight could reasonably be expected to be diverted to; and
 - (iii) arrive at the place of destination or any other alternate destination, are carried on board;
- (m) the external surfaces are checked prior to take-off for any deposit which might adversely affect the performance or controllability of the aircraft, unless otherwise permitted in the aircraft flight manual referred to in regulation 91.03.2, and if such deposit is found, ensure that it is removed;
- (n) according to the information available to him or her-
 - (i) in respect of an aircraft, the condition of the runway intended to be used will not prevent a safe take-off at departure or a safe landing at the destination aerodrome or alternate aerodrome, as applicable; and
 - (ii) the weather at the departure and arrival aerodromes and en route, including any possible alternate aerodromes or routes, will not preclude safe completion of the flight;
- (o) the runway visual range or visibility in the take-off direction of the aircraft is equal to, or better than, the applicable minimum;
- (p) the flight crew members are properly qualified for the specific operation to be undertaken, except that for commercial air operations, the operator must ensure that the flight crew are properly qualified;
- (q) an adequate and suitable aerodrome is available for take-off, enroute and destination, should it become inadvisable to continue to or land at the destination aerodrome; and
- (2) The pilot-in-command of an aircraft must –
 - (a) not commence a flight unless he or she has ascertained through the relevant NOTAM, AIC, IAIP or IAIP Supplement that the aerodromes, navigation aids and communication facilities are adequate for the manner in which the flight is to be conducted;
 - (b) prior to take-off from an aerodrome at which an air traffic service unit is in operation, determine through the aeronautical information services available from the unit or any other reliable source, that the unserviceability of any aerodrome, navigation aids or communication facilities required for such flight, will not prejudice the safe conduct of the flight;
 - (c) advise an air traffic service unit, as soon as it is practical to do so, of any inadequate facilities encountered during operations; and

- (d) decide on the adequacy of facilities and services available at an aerodrome of intended operation, when assessing the level of safety risk associated with the aircraft type and nature of the operation, in relation to the availability of rescue and firefighting services.

(3) If a load and trim sheet is required in terms of these regulations, the load and trim sheet must be acceptable to and countersigned by the pilot-in-command before a flight commences, but if the load and trim sheet is submitted to the pilot-in-command by electronic data transfer, commencement of the flight is considered to be the acceptance of the load and trim sheet by such pilot-in-command.

Duties of pilot-in-command regarding flight operations

91.02.7 (1) The pilot-in-command of an aircraft is, whether manipulating the controls or not, responsible for –

- (a) the operation, safety and security of the aircraft, crew members, passengers and cargo in accordance with these regulations while he or she is in command;
- (b) operational control of the aircraft;
- (c) the conduct of crew members and passengers carried on such aircraft ; and
- (d) the maintenance of discipline by all persons on board the aircraft .

(2) The pilot-in-command of the aircraft has the authority –

- (a) to give such commands as he or she deems necessary in the interest of the safety of the aircraft, persons or property on board the aircraft; and
- (b) to disembark any person or cargo which in his or her opinion, represents a potential hazard to the safety of the aircraft, persons or property on board the aircraft.

(3) The pilot-in-command of the aircraft must ensure that all passengers are informed as to –

- (a) when and how oxygen equipment is to be used, if the carriage of oxygen is required;
- (b) the location and use of life jackets or equivalent individual flotation devices, where the carriage of life jackets is required;
- (c) the location and method of opening emergency exits;
- (d) when seat belts are to be fastened;
- (e) when smoking is prohibited;
- (f) when portable electronic devices may be used;
- (g) the existence and location of the passenger safety features card, if carried on board; and
- (h) before take-off, the location and general manner of use of the relevant emergency equipment carried for collective use and, when an emergency arises, instruct the passengers to take such emergency action as may be appropriate.

- (4) A pilot-in-command of an aircraft must –
- (a) ensure that a pre-flight inspection is carried out, and that the checklists, and where applicable, the flight deck procedures and other instructions regarding the operation of the aircraft, the limitations contained in an aircraft flight manual referred to in regulation 91.03.2 or equivalent certification document, are fully complied with at the appropriate times during a flight;
 - (b) decide whether or not to accept an aircraft with unserviceability allowed by Configuration Deviation List or MEL, where applicable;
 - (c) determine that aircraft performance will permit the take-off and departure to be carried out safely;
 - (d) ensure that, before take-off and landing and whenever, by reason of turbulence, any emergency occurring during a flight or whenever considered necessary in the interest of aviation safety the precaution is considered necessary –
 - (i) all persons on board aircraft are secured in their seats by means of the seat belts or shoulder harnesses provided; and
 - (ii) equipment and baggage are properly secured and all exit and escape paths are unobstructed;
 - (e) when re-planning, while in flight, to proceed along a route or to a destination other than a route or destination originally planned, amend an operational flight plan, if such a plan was required in terms of regulation 91.02.6(1)(f), and notify a nearest air traffic service unit of such change;
 - (f) not continue towards an aerodrome of intended landing unless the latest available information indicates that at the expected time of arrival, a landing can be effected at that aerodrome or at least one destination alternate aerodrome, in compliance with the operating minima established in accordance with regulation 91.07.5;
 - (g) report any accident or incident involving an aircraft in accordance with regulations related to aircraft accident and incident investigation, unless the pilot-in-command is incapacitated or an operator has established another means of reporting accidents or incidents, in which case the operator must initiate the report;
 - (h) report any dangerous goods accident or incident involving an aircraft in accordance with Part 92;
 - (i) if an aircraft is endangered in flight by a near collision with any other aircraft or object, faulty air traffic procedure or lack of compliance with applicable procedures by an air traffic service unit or a flight crew member or a failure of ATS facilities, submit an ATS incident report;
 - (j) record any technical defect and that he or she has exceeded any technical limitation;
 - (k) if a potentially hazardous condition such as bird accumulation, an irregularity in a ground or navigation facility, meteorological phenomena, a volcanic ash cloud or a greater than normal radiation level is observed during flight, notify an air traffic service unit as soon as possible.
 - (l) If an ELT has been inadvertently activated as a result of a hard landing or for other reasons the pilot-in-Command must –

- (i) immediately report such inadvertent activation of an ELT to a rescue co-ordination centre, through a nearest air traffic service unit ; and
- (ii) record such inadvertent activation of an ELT in an appropriate flight log as maintenance may be required before it is returned to service;
- (m) report any occurrence of height keeping errors encountered in an RVSM environment, as provided for in Document NAM-CATS-OPS 91; and
- (n) report a runway braking action through an air-report when a runway braking action encountered is not as good as reported.
- (5) The pilot-in-command of an aircraft must ensure that –
 - (a) breathing oxygen is available to crew members and at least ten percent of the passengers if flights in a non-pressurised aircraft are contemplated above 10 000 feet, and up to 12 000 feet for more than 120 minutes intended flight time, above 12 000 feet; and
 - (b) breathing oxygen is carried in sufficient quantities for all flights at such altitudes where a lack of oxygen might result in impairment of faculties of crew members or harmfully affect passengers.
- (6) The pilot-in-command of an aircraft may not –
 - (a) require a crew member to perform any duties during a critical phase of the flight, except those duties required for the safe operation of the aircraft;
 - (b) permit any activity during a critical phase of the flight which could distract any crew member from the performance of his or her duties or which could interfere in any way with the proper conduct of those duties; and
 - (c) commence a flight in the event a crew member is incapacitated by any cause such as injury, fatigue, sickness or the effects of any psychoactive substance or continue a flight beyond the nearest suitable aerodrome in the event of a flight crew member becoming unable to perform any essential duties as a result of fatigue, sickness or lack of oxygen.

SUBPART 3 DOCUMENTATION AND RECORDS

Documents to be carried on board

91.03.1 (1) An owner or operator of an aircraft must ensure that the following documents, or certified true copies of such documents, are carried on board an aircraft on each individual flight –

- (a) if the aircraft is engaged in an international flight –
 - (i) the certificate of registration;
 - (ii) the certificate of airworthiness or, for non-type certificated aircraft, an authority to fly;
 - (iii) an appropriate licence and medical certificate of each crew member;

- (iv) a general declaration;
 - (v) an aircraft radio station licence;
 - (vi) a passenger manifest, unless if such information is included in a general declaration referred to in subparagraph (iv);
 - (vii) if cargo is carried, a manifest and detailed declaration of cargo;
 - (viii) a certificate of release to service;
 - (ix) a navigation log or operational flight plan;
 - (x) an aircraft flight manual, referred to in regulation 91.03.2 or an equivalent document, which document must include the statements referred to in Document NAM-CATS-OPS 91, if flight in RVSM airspace is contemplated;
 - (xi) mass and balance report;
 - (xii) flight folio or journey log or equivalent;
 - (xiii) MEL, if applicable;
 - (xiv) noise certificate, if such certificate has been issued for the type of aircraft;
 - (xv) a list of visual signals and procedures for use by intercepting and intercepted aircraft;
 - (xvi) list of specific approvals, if applicable; and
 - (xvii) where applicable, a special flight permit;
- (b) if the aircraft is engaged in a domestic flight –
- (i) the certificate of registration;
 - (ii) the certificate of airworthiness or, for non-type certificated aircraft, an authority to fly;
 - (iii) the appropriate licence and medical certificate of each crew member;
 - (iv) the aircraft radio station license;
 - (v) the certificate of release to service;
 - (vi) aircraft flight manual referred to in regulation 91.03.2 or an equivalent document;
 - (vii) the mass and balance report;
 - (viii) the flight folio or journey log or equivalent;
 - (ix) MEL, if applicable;
 - (x) noise certificate, if such certificate has been issued for the type of aircraft;

- (xi) list of visual signals and procedures for use by intercepting and intercepted aircraft;
- (xii) list of specific approvals, if applicable;
- (xiii) licence to operate the service, if required; and
- (xiv) where applicable, a special flight permit.

Aircraft flight manual

91.03.2 (1) The owner or operator of an aircraft must keep an approved aircraft flight manual for each aircraft of which he or she is the owner or operator and must keep such manual updated with the latest amendments and implement changes issued by an appropriate authority.

(2) The flight crew members of the aircraft must, on each flight, operate such aircraft in accordance with the aircraft flight manual, unless an unforeseen emergency dictates otherwise.

Aircraft checklist

91.03.3 (1) The owner or operator of an aircraft must establish and make available to the flight crew and other personnel in his or her employ needing the information, a checklist system for the aircraft, to be used by such flight crew and other personnel for all phases of the operation under normal, abnormal and emergency conditions.

(2) The pilot-in-command must ensure the checklists used on board the aircraft are complied with and utilised having due regard to human factors principles.

(3) The checklists required in terms of subregulation (1) must be designed having due regard to human factors principles as provided for in Document NAM-CATS-OPS 91.

Flight folio or Journey log

91.03.4 (1) The owner or operator of a Namibian registered aircraft must ensure that the aircraft carries a flight folio, journey log or any other similar document.

- (2) The flight folio or journey log must contain the following items –
 - (a) the aeroplane nationality and registration;
 - (b) a date of the flight;
 - (c) the crew member names and duty assignments;
 - (d) the departure and arrival points and times;
 - (e) the purpose of the flight;
 - (f) observations regarding the flight; and
 - (g) the signature of the pilot-in-command.
- (3) The pilot-in-command is responsible for the journey log book.

Flight recorder records

91.03.5 (1) The owner or operator of an aircraft on which a flight recorder is carried must –

- (a) in the case of an accident or incident involving such aircraft, preserve the original recording, as retained by the flight recorder for a period of not less than 60 days calculated from the date of the accident or incident occurred or until permission for disposal of such recording has been given by the investigator-in-charge or an appropriate authority, whichever is the latter date; and
- (b) if the Executive Director directs such owner or operator, preserve the original recording, as retained by the flight recorder, for a specified period calculated from the date of such direction.

(2) If an aircraft is required under this Part to be fitted with a flight data recorder, the owner or operator of the aircraft must –

- (a) have the recording from a flight recorder for the period of operating time as required by subregulation (1)(a) and (b), but for the purpose of testing and maintaining a flight data recorder one hour of the oldest recorded material at the time of testing may be erased;
- (a) keep a recording from a flight recorder of at least one representative flight made within the preceding 12 months which includes a take-off, climb, cruise, descent, approach and landing, together with a means of identifying the recording with the flight to which it relates; and
- (c) keep a document which represents the information necessary to retrieve and convert the stored data into engineering units.

(3) The owner or operator of an aircraft on which a flight recorder is carried must, within a reasonable time after being requested to do so by the Executive Director or an appropriate authority, produce any recording made by such flight recorder which is available or has been preserved.

(4) A cockpit voice recorder recording may be used for other purposes other than for the investigation of an accident or incident, only with the consent of all the flight crew members concerned.

(5) The flight data recorders recordings may be used for other purposes other than the investigation of an accident or incident which is subject to mandatory reporting, only when such recordings are –

- (a) used by the owner or operator only for airworthiness or maintenance purposes;
- (b) de-identified; or
- (c) disclosed under secure procedures.

Logbooks

91.03.6 (1) The owner or operator of an aircraft must in respect of Namibian registered aircraft keep a logbook for specified equipment for the purpose of recording in such log book the maintenance history of the equipment to which each relates –

- (a) the aircraft logbook for each aircraft;

- (b) the engine logbook for each aircraft engine; and
 - (c) a propeller logbook for each propeller.
- (2) An aircraft which does not qualify for the issue of a certificate of airworthiness is exempted from complying with the requirement referred to subregulation (1).
- (3) A logbook kept in terms of subregulation (1) must conform to the format provided from time to time in an Aeronautical Information Circular by the Executive Director.

Operations manual

- 91.03.7** (1) For operations requiring an approval from the Executive Director, an operator must prepare an operations manual containing all the information required under this Part set out the manner in which he or she may operate.
- (2) An operator must provide for the use and guidance of personnel concerned, the operations manual containing all the instructions and information necessary for the operations personnel to perform their duties;
- (3) The operations manual referred to in subregulation (2) must be amended or revised when necessary to ensure that the information contained in such manual is kept up to date and all such amendments or revisions must be issued to all personnel that are required to use the manual.

SUBPART 4 INSTRUMENTS AND EQUIPMENT

Use and installation of instruments and equipment

- 91.04.1** (1) The instruments, equipment and flight documents provided for in this Subpart must, in addition to the minimum equipment necessary for the issuance of a certificate of airworthiness, be installed or carried, as appropriate, in an aircraft according to the aircraft used and to the circumstances under which the flight is to be conducted.
- (2) The instruments and equipment, including their installation, must as contemplated in subregulation (1) be acceptable to the Executive Director.
- (3) The instruments and equipment of the aircraft intended to be used, must comply with the minimum requirements for the planned operation, that will enable the flight crew to –
- (a) control the flight path of the aircraft;
 - (b) carry out any required procedural manoeuvres; and
 - (c) observe the operating limitations of the aircraft in the expected operating conditions.
- (4) The instruments on an aircraft which are used by a pilot must be arranged in such a manner that the pilot can see their indications readily from his or her station, with the minimum practicable deviation from the position and line of vision which he or she normally assumes when looking forward along the flight path.
- (5) If a single instrument or item of equipment in an aircraft is required to be operated by more than one pilot, such single instrument or item of equipment must be installed in such a manner that it can be readily seen and operated from each pilot station.

- (6) An aircraft must be equipped with the means for indicating the adequacy of the power being supplied to the required flight instruments.
- (7) The placards and instrument markings, containing those operating limitations required by the type certificate or by these regulations must be displayed in the aircraft and be visible to the flight crew.
- (8) An owner or operator of an aircraft must ensure that a flight does not commence unless the instruments and equipment required under these regulations are functioning and are in a condition for safe operation of the kind of operation being conducted, except as provided for in a MEL.
- (9) The owner or operator of an aircraft is not required to obtain approval for –
- (a) fuses referred to in regulation 91.04.2;
 - (b) an independent portable electric light referred to in regulation 91.04.3(1)(d);
 - (c) the 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 91.04.21; and
 - (f) survival equipment referred to in regulation 91.04.25.
- (10) An aircraft with advanced cockpit automation systems (glass cockpits) must have system redundancy that provides the flight crew with attitude, heading, airspeed and altitude indications in case of failure of the primary system or display.
- (11) An aircraft must be equipped with or carry on board –
- (a) an accessible first-aid kit;
 - (b) portable fire extinguishers of a type which, when discharged, will not cause dangerous contamination of the air within the aircraft and at least one portable fire extinguisher must be located in –
 - (i) the pilot's compartment; and
 - (ii) each passenger compartment that is separate from the pilot's compartment and that is not readily accessible to the flight crew;
 - (c) a seat or berth –
 - (i) for each person over the age of two years; and
 - (ii) a seat belt for each seat and restraining belts for each berth.
- (12) An aircraft on all flights must be equipped with the ground-air signal codes for search and rescue purposes.
- (13) An aircraft on all flights must be equipped with a safety harness for each flight crew member seat.

Circuit protection devices

91.04.2 (1) An owner or operator of an aircraft in which fuses are used, may not operate an aircraft unless there are spare fuses available for use in flight equal to at least ten percent or three, whichever is the greater, of the number of fuses of each rating required for complete circuit protection, which spare fuses must be accessible to the flight crew during flight.

(2) If the ability to reset a circuit breaker or replace a fuse is essential to safety in flight, such circuit breaker or fuse must be located and identified in such a manner that it can be readily reset or replaced in flight.

(3) A person may not deactivate a circuit breaker in flight other than in accordance with the aircraft flight manual referred to in regulation 91.03.2.

Aircraft operating lights

91.04.3 (1) A owner or operator of an aircraft may not operate such aircraft by night, unless, in addition to the equipment specified in regulation 91.04.4 or 91.04.5(1), the aircraft is equipped with –

- (a) serviceable navigation lights;
- (b) a serviceable landing light;
- (c) a serviceable rotating beacon or strobe light; and
- (d) an independent portable light for each required crew member, readily accessible to such crew member when seated at his or her designated station.

(2) The power supplied from the electrical system of an aircraft must –

- (a) provide adequate illumination for all instruments and equipment, used by the flight crew and which are essential for the safe operation of the aircraft; and
- (b) be adequate to provide illumination in all passenger compartments, if any.

(3) An owner or operator of a helicopter may not operate the helicopter by night unless such helicopter is equipped with in the case of a flight by night within 10 nautical miles –

- (a) a light or lights providing adequate illumination both forward and downward to facilitate safe approaches, landings and take-offs; or
- (b) two serviceable landing lights which are capable of providing adequate illumination both forward and downward to facilitate safe approaches, landings and take-offs.

(4) An owner or operator of a seaplane or an amphibious aircraft may not operate such seaplane or amphibious aircraft unless it is equipped with –

- (a) the instruments and equipment referred to in subregulation (1), (2) or (3); and
- (b) when operating on water by night, display lights to conform with the Convention on the International Regulations for Preventing Collisions at Sea (COLREGs), adopted on the 20 October 1972 and entered into force on 15 July 1977.

(5) The navigation lights to be displayed by aircraft by night, on the water or on the manoeuvring area of an aerodrome, must be as provided for in Document NAM-CATS-OPS 91.

Flight, navigation and associated equipment for aircraft operated under VFR

91.04.4 An owner or operator of an aircraft may not operate the aircraft in accordance with VFR, unless such aircraft is equipped with the following functioning equipment –

- (a) a magnetic compass;
- (b) an accurate time-piece showing the time in hours, minutes, and seconds;
- (c) a barometric altimeter;
- (d) an airspeed indicator; and
- (e) if so required for use in designated airspace is equipped in accordance with regulation 91.04.5, unless authorised by the responsible air traffic service unit.

Flight, navigation and associated equipment for aircraft operated under IFR

91.04.5 (1) An owner or operator of an aircraft may not operate an aircraft in accordance with IFR or if the aircraft cannot be maintained in a desired attitude without visual reference to one or more flight instruments unless if such aircraft is equipped with functioning navigation equipment appropriate to the route to be flown, and –

- (a) a magnetic compass;
- (b) an accurate time-piece showing the time in hours, minutes and seconds;
- (c) for large aeroplanes, two independent sensitive pressure altimeter systems with subscale settings, calibrated in hectopascal, adjustable for any barometric pressure setting likely to be encountered during flight and for all other aircraft, one sensitive pressure altimeter with subscale settings, calibrated in hectopascal, adjustable for any barometric pressure setting likely to be encountered during flight;
- (d) an airspeed indicator system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing;
- (e) a vertical-speed indicator;
- (f) a stabilised direction indicator;
- (g) a turn-and-bank indicator or a turn co-ordinator incorporating a slip indicator;
- (h) an attitude indicator and for large aeroplanes for which an individual certificate of airworthiness was first issued after 1 January 1975, an emergency power supply, independent of the main electrical generating system, for the purpose of operating and illuminating, for a minimum period of 30 minutes, an attitude indicator, clearly visible to the pilot-in-command;
- (i) a means of indication, in the cockpit or in the flight deck, of the outside air temperature in degrees celsius;
- (j) a chart holder or knee pad in an easily readable position which can be illuminated for operations by night;

- (k) a means of measuring and displaying whether the supply of power to the gyroscopic instruments is adequate; and
- (l) a pressure-altitude reporting transponder.

(2) The emergency power supply referred to in subparagraph (h) must be automatically operative after the total failure of the main electrical generating system and give a clear indication on the instrument panel that the attitude indicators are being operated by emergency power.

(3) An owner or operator of a pressurised aircraft may not operate the aircraft when carrying passengers at night or under instrument meteorological conditions if such aeroplane is not equipped with operative weather-detecting equipment capable of detecting thunderstorms whenever the aircraft is being operated in areas where such conditions may be expected to exist along the route.

Additional equipment for single-pilot operation under instrument meteorological conditions or at night

91.04.6 An owner or operator of an aircraft may not conduct single-pilot operations in an aircraft under instrument meteorological conditions or at night unless such aircraft has been certificated for single-pilot operations and –

- (a) the single pilot flying the aircraft is equipped with a headset with boom microphone or equivalent and has a transmit button positioned in such a way that it may be operated without the pilot having to remove his or her hands from the control wheel, joystick or cyclic stick;
- (b) the aircraft is equipped with a means of displaying charts that enables such aircraft to be readable in all ambient light conditions;
- (c) if the aircraft is flown under instrument meteorological conditions, such aircraft has been certificated for single pilot IFR operations and is equipped with a serviceable automatic flight control system with at least altitude hold and heading mode; or
- (d) in the case of a helicopter, if it is flown at night under visual meteorological conditions such helicopter is equipped with a serviceable automatic flight control system with at least altitude and heading mode or similar equipment, but this requirement does not apply to a helicopter –
 - (i) operated in the circuit of the aerodrome of departure;
 - (ii) over densely populated, well-lighted areas as contemplated in regulation 91.06.32(2); or
 - (iii) is not flown higher than 3 500 feet above the minimum height provided for in these regulations.

Mach number indicator

91.04.7 An owner or operator of an aircraft with speed limitations expressed in terms of Mach number may not operate the aircraft unless such aircraft is equipped with a Mach number indicator.

Radio altimeter

91.04.8 An owner or operator of a helicopter may not operate the helicopter on a flight over water at a distance from land corresponding to more than 10 minutes at normal cruise speed, unless such helicopter is equipped with a radio altimeter with an audio voice warning or other aural means of notifying the flight crew when operating below a preset height and with a visual warning capable of alerting the flight crew when operating below a preset height selectable by the flight crew.

Equipment for operations in icing conditions

91.04.9 (1) An owner or operator of an aircraft may not operate the aircraft in forecast or actual icing conditions unless such aircraft is certificated and equipped to operate in icing conditions.

(2) An owner or operator of an aircraft may not operate an aircraft in forecast or actual icing conditions by night unless such aircraft is equipped with a means to illuminate or detect the formation of ice.

(3) The means of illumination referred to in subregulation (2), must be of a type which does not cause glare or reflection which may handicap flight deck crew members in the performance of their duties.

(4) A flight, to be planned or expected to operate in suspected or known ground icing conditions, may not take off unless the aircraft has been inspected for icing and, if necessary, has been subjected to appropriate ground de-icing.

(5) Accumulation of ice or other naturally occurring contaminants must be removed so that the aircraft is kept in an airworthy condition prior to take-off.

Flight recorders

91.04.10 (1) For the purposes of this regulation any reference to –

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

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

(2) A person may not operate an aircraft engaged in international general aviation operations which –

(a) is a turbine-engined aeroplane with a Maximum Certificated take-off Mass of 5700 kilogram or less for which an individual certificate of airworthiness was first issued on or after 1 January 2016 unless such aircraft is equipped with a flight data recorder that complies with the requirements provided for in Document NAM-CATS-OPS 91; or

(b) is a helicopter with Maximum Certificated take-off Mass exceeding 3180 kilogram for which an individual certificate of airworthiness was first issued on or after 1 January 2016 unless such helicopter is equipped with a flight data recorder that complies with the requirements provided for in Document NAM-CATS-OPS 91;

- (3) A person may not operate an aircraft engaged in international general aviation operation which –
- (a) is a turbine-engined aeroplane with a Maximum Certificated take-off Mass of 5700 kilogram or more for which an individual certificate of airworthiness was first issued on or after 1 January 2023 unless such aircraft is equipped with a flight data recorder that complies with the requirements provided for in Document NAM-CATS-OPS 91;
 - (b) is a turbine-engine aeroplane with Maximum Certificated take-off Mass exceeding 5 700 kilogram, required to be operated by more than one pilot for which an application for type certification was submitted to a contracting state on or after 1 January 2016, unless if such aircraft is equipped with a cockpit voice recorder or a cockpit audio recording system which complies with the requirements prescribed in Document NAM-CATS-OPS 91.
- (4) A person may not operate a turbine engine aeroplane with Maximum Certificated take-off Mass exceeding 5 700 kilogram for which a type certificate was first issued on or after 1 January 2016 and required to be operated by more than one pilot unless such aeroplane is equipped with either a cockpit voice recorder or a cockpit audio recording system.
- (5) A cockpit voice recorder referred to in this Subpart must retain the information recorded during at least the last two hours of operation.
- (6) A person may not operate an aircraft for which the individual certificate of airworthiness is first issued on or after 1 January 2016 and which is required to be fitted with a cockpit voice recorder or for aeroplanes, a cockpit audio recording system, unless the cockpit voice recorder or cockpit audio recording system, as applicable, is provided with an independent power source that complies with the requirements provided for in Document NAM-CATS-OPS 91.
- (7) A person may not operate an aircraft for which the individual certificate of airworthiness was first issued on or after 1 January 2016, which utilises any data link communications and is required to carry a cockpit voice recorder, unless all data link communications messages to and from the aircraft are recorded on a data link recorder or other flight recorder.
- (8) The minimum recording duration of the data link communications referred to in subregulation (7) must be equal to the duration of the cockpit voice recorder and must be correlated to the recorded cockpit audio.
- (9) A person may not operate an aircraft which is modified on or after 1 January 2016 to install and utilise any data link communications and which is required to carry a cockpit voice recorder, unless the data link communications messages are recorded on a data link recorder or other flight recorder.
- (10) A flight data recorder required in terms of this Part must be provided for in Document NAM-CATS-OPS 91 and be capable of retaining the information recorded during at least –
- (a) in the case of an aeroplane, the last 25 hours of its operation; or
 - (b) in the case of a helicopter, the last 10 hours of its operation.
- (11) A cockpit voice recorder or cockpit audio recording system required by this regulation must meet the specific recorded information time as provided for in Document NAM-CATS 91.
- (12) A person may not use the following mediums to record any information or data required to be recorded in terms of this Part –

- (a) engraving metal foil, photographic film or frequency modulation (FM) in flight data recorders, aircraft data recording system, Airborne Image Recorder or Airborne Image Recording System; and
 - (b) from 1 January 2016, magnetic tape in flight data recorders and magnetic tape and wire in cockpit voice recorders.
- (13) A flight recorder may not be switched off during flight.
- (14) A flight recorder installed in an aircraft must meet the installation, crashworthiness and fire protection specifications provided for in Document NAM-CATS-OPS 91 and must be located and installed in such a manner that maximum practicable protection is provided, such that, in the event of an accident or incident, recorded data may be recovered in a preserved and intelligible state.
- (15) A owner or operator of an aircraft must ensure that retrieving the recorded data from the storage medium will be readily possible.
- (16) A pilot-in-command or owner or operator of an aircraft must, in the event an aircraft becomes involved in an accident or incident, ensure to the extent possible, that –
- (a) all related flight recorder records, and if possible the associated flight recorders, are preserved and retained in safe custody pending their disposition to the accident or incident investigation team;
 - (b) a flight recorder is deactivated upon completion of flight time following an accident or incident; and
 - (c) a flight recorder is not reactivated before its disposition to the accident or incident investigation team.
- (17) A owner or operator of an aircraft must ensure that the quality assurance programme of the organisation responsible for the maintenance of his or her aircraft includes verification of the measurement range, recording interval and accuracy of parameters on installed flight recorder equipment.
- (18) A owner or operator of an aircraft must ensure that documentation concerning parameter allocation, conversion equations, periodic calibration and other serviceable or maintenance information is maintained by the organisation responsible for maintenance of his or her aircraft.
- (19) The documentation referred to in subregulation (18) must be sufficient to ensure that the accident investigation authorities have the necessary information to read out the data in engineering units.
- (20) The cockpit voice recorder and flight data recorders referred to in this part may be combined.
- (21) A pilot-in-command of an aircraft may commence a flight with flight data recorders inoperative, except that –
- (a) such aircraft may not depart from an aerodrome if repairs or replacements to each flight data recorders can be made;
 - (b) such aircraft does not exceed six further consecutive flights with an flight data recorders unserviceable;

- (c) not more than 48 hours have elapsed since such flight data recorders became unserviceable;
 - (d) such flight data recorders is not combined with cockpit voice recorder and an aircraft is equipped with cockpit voice recorder that is serviceable and functioning in accordance with the requirements provided for in Document NAM-CATS-OPS 91; and
 - (e) for an aircraft with an approved MEL, such aircraft is operated in accordance with that MEL.
- (22) A pilot-in-command of an aircraft may commence a flight with cockpit voice recorder or cockpit audio recording system inoperative, except that –
- (a) such aircraft may not take-off from an aerodrome if repairs or replacements to such cockpit voice recorder can be made;
 - (b) such aircraft does not exceed six further consecutive flights with cockpit voice recorder unserviceable;
 - (c) not more than 48 hours have elapsed since such cockpit voice recorder became unserviceable;
 - (d) any flight data recorders required to be carried is operative, unless such flight data recorders is combined with a cockpit voice recorder; and
 - (e) for aircraft with an approved MEL, such aircraft is operated in accordance with such MEL.
- (23) An owner or operator of an aircraft may not use the recordings or transcripts of cockpit voice recorder, cockpit audio recording system, Class A AIR, and Class A airborne image recording system for any other purposes other than for purposes of an investigation of an accident or incident in terms of regulations related to aircraft accident and incident investigations, except if such recordings or transcripts are –
- (a) related to a safety-related event identified in the context of an safety management system and are –
 - (i) restricted to the relevant portions of a de-identified transcript of the recording; and
 - (ii) subject to the protections stipulated in Part 140;
 - (b) sought for use in criminal proceedings not related to an event involving an aircraft accident or incident investigation and are subject to the protections stipulated in Part 140; or
 - (c) used for inspections of flight recorder systems as provided in this Part and its associated Document NAM-CATS-OPS 91.
- (24) An owner or operator of an aircraft may not use the recordings or transcripts of a flight data recorder, an aircraft data recording system as well as Class B and Class C AIR and Airborne Image Recording System for purposes other than the investigation of an accident or incident in terms of regulations related to aircraft accident and incident investigations, except if a recording or a transcript is subject to the protections provided for under Part 140 and are –

- (a) used by an owner or operator for airworthiness or maintenance purposes;
- (b) used by an owner or operator in the operation of a flight data analysis programme referred to under this Part;
- (c) sought for use in proceedings not related to an event involving an accident or incident investigation;
- (d) de-identified; or
- (e) disclosed under secure procedures.

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

91.04.11 A person may not operate an aircraft unless such aircraft is equipped, as applicable, with –

- (a) a seat or berth for each person who is aged two years or more;
- (b) a safety belt with or without a diagonal shoulder strap or a safety harness, for use in each passenger seat for each passenger who is aged two years or more;
- (c) a safety belt for use in each passenger berth;
- (d) a child restraint device for the carriage of a child as provided for in Document NAM-CATS-OPS 91;
- (e) a safety harness for each flight crew member seat, incorporating a device which must automatically restrain the occupant's torso in the event of rapid deceleration; and
- (f) a safety harness for each cabin crew member seat, except that a safety belt with one diagonal shoulder strap is permitted if the fitting of a safety harness is not reasonably practical.

Stowage of articles, baggage and cargo

91.04.12 An owner or operator of an aircraft may not operate the aircraft unless all articles, baggage and cargo carried on board, excluding those items in use by either the flight crew or by passengers, if such use is not prohibited in the interest of the safety of the aircraft or its occupants, are placed –

- (a) in a manner which prevents movement likely to cause injury or damage and does not obstruct aisles and exits; or
- (b) in stowage designed to prevent movement likely to cause injury or damage.

First aid and universal precaution kits

91.04.13 (1) An owner or operator of an aircraft used in general aviation operations may not operate the aircraft unless such aircraft is equipped with the first aid kit consisting of the medical supplies as provided for in Document NAM-CATS-OPS 91.

(2) An owner or operator of an aircraft must carry out periodical inspections of the first aid kit to ensure that, as far as practicable, the contents of such first aid kit are in a condition necessary for its intended use.

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

(4) The first aid kit must be readily accessible to the crew or passengers.

(5) An owner or operator of an aircraft used in general aviation operations for which the maximum certificated passenger seating is 20 or more and in which a cabin attendant is carried, may not operate the aircraft unless such aircraft is equipped with universal precaution kits specified in Document NAM-CATS-OPS 91.

(6) The contents of the universal precaution kits must be as provided for in Document NAM-CATS-OPS 91.

First aid oxygen

91.04.14 (1) An owner or operator of an aircraft in respect of which the carriage of a cabin crew member is required in terms of this Part, may not operate the aircraft unless such aircraft is equipped with the appropriate supply of first aid oxygen provided for in Document NAM-CATS-OPS 91.

(2) The conditions, rules, requirements, procedures or standards for first aid oxygen must be as provided for in Document NAM-CATS-OPS 91.

Supplemental oxygen in case of pressurised aircraft

91.04.15 (1) An owner or operator of a pressurised aircraft may not operate such aircraft unless such aircraft is equipped with the supplemental oxygen as provided for in Document NAM-CATS-OPS 91 and such oxygen may be used continuously whenever the circumstances for which its supply has been provided for prevail.

(2) An owner or operator of a pressurised aircraft may not operate the aircraft above 25 000 feet except if all flight crew members have available at their flight duty station a quick-donning type of oxygen mask which will readily supply oxygen upon demand.

Supplemental oxygen in case of non-pressurised aircraft

91.04.16 (1) An owner or operator of a non-pressurised aircraft may not operate the aircraft at altitudes between 10 000 feet and 12 000 feet for longer than 120 consecutive minutes intended flight time, or above 12 000 feet, unless if such aircraft is equipped with the supplementary oxygen as provided for in Document NAM-CATS-OPS 91 and such oxygen may be used continuously whenever the circumstances for which its supply has been provided prevail.

(2) The conditions, rules, requirements, procedures or standards for supplemental oxygen must be as provided for in Document NAM-CATS-OPS 91.

Flight crew protective breathing equipment

91.04.17 (1) A person may not operate a pressurised aircraft or an unpressurised aircraft with a maximum certificated take-off mass exceeding 5 700 kilograms and a maximum approved passenger seating configuration of more than 20 seats, at altitudes above 12 000 feet, except if such aeroplane –

(a) is equipped with equipment to protect the eyes, nose and mouth of each flight crew member while on flight deck duty and to provide oxygen for a period of at least 15 minutes;

- (b) has sufficient portable protective breathing equipment to protect the eyes, nose and mouth of all cabin crew members required to be carried in terms of this Part and to provide breathing gas for a period of at least 15 minutes; and
- (c) if no cabin crew member is carried, is equipped with portable protective breathing equipment to protect the eyes, nose and mouth of one member of the flight crew and to provide breathing gas for a period of at least 15 minutes.

(2) The supply for protective breathing equipment may be provided by supplemental oxygen referred to in regulation 91.04.15 or 91.04.16.

(3) The protective breathing equipment intended for use by flight deck crew, must be conveniently located on the flight deck and be easily accessible for immediate use by each required flight deck crew member at his or her assigned duty station.

(4) The protective breathing equipment intended for use by cabin crew must be installed adjacent to each required cabin crew member duty station.

(5) The easily accessible portable protective breathing equipment must be provided and located at, or adjacent to, the hand fire extinguishers, on condition that if the fire extinguisher is located inside a cargo compartment, the protective breathing equipment must be stowed outside, but adjacent to, the entrance to such compartment.

(6) The protective breathing equipment, while in use, must not prevent communication, if required.

Fire extinguishers

91.04.18 (1) An owner or operator of an aircraft may not operate an aircraft except if such aircraft is equipped with the appropriate fire extinguisher as provided for in Document NAM-CATS-OPS 91.

(2) Any agent used in a built-in fire extinguisher for each lavatory disposal receptacle for towels, paper or waste in an aircraft for which the individual certificate of airworthiness is first issued on or after 31 December 2011 and any extinguishing agent used in a portable fire extinguisher in an aircraft for which the individual certificate of airworthiness is first issued on or after 31 December 2018 must meet the applicable minimum performance requirements provided for in Document NAM-CATS-OPS 91.

Crash axes and crowbars

91.04.19 (1) An owner or operator of an aircraft with a maximum certificated take-off mass exceeding 5 700 kilograms or a maximum approved passenger seating configuration of more than nine seats, may not operate the aircraft except if such aircraft is equipped with at least one crash axe or crowbar located on the flight deck.

(2) If the maximum approved passenger seating configuration is more than 200 seats, an additional crowbar must be carried in the aircraft and located out of sight in or near the most rearward galley area.

Marking of break-in points

91.04.20 An owner or operator of an aircraft must ensure that, if areas of the fuselage suitable for break-in by rescue crews in an emergency, are marked on the aircraft, such areas must be marked in accordance with the requirements as provided for in Part 47.

Megaphones

91.04.21 An owner or operator of an aircraft with a maximum approved passenger seating configuration of more than 60 seats and which is carrying one or more passengers, may not operate the aircraft unless such aircraft is equipped with the appropriate portable battery-powered megaphones as provided for in Document NAM-CATS-OPS 91.

Emergency locator transmitters

91.04.22 (1) Except as provided in subregulation (3), an owner or operator of an aircraft specified in Document NAM-CATS-OPS 91 may not operate such aircraft unless it is equipped with one or more approved ELTs.

(2) The number and type of ELTs, the manner in which the ELT's are carried, the specifications to which the ELT's adhere to, the frequencies on which the ELT's are able to transmit and the manner in which they must be maintained are provided for in Document NAM-CATS 91.

(3) The following aircraft are exempted from the requirement referred to in subregulation (1) –

- (a) an aircraft engaged in flights remaining within a radius of 50 nautical miles from their point of departure;
- (b) an aircraft engaged in the aerial application of chemicals or other substances for agricultural purposes, and on flights incidental thereto;
- (c) a new aircraft on a flight for a purpose associated with its manufacture and preparation for delivery, but not when on its delivery flight;
- (d) an aircraft flown for the purpose of moving it to a place to have an approved ELT fitted or a fitted ELT repaired, removed or overhauled, except that only the required flight crew members may be carried on board;
- (e) an aircraft of which the ELT has been temporarily removed for inspection, repair, modification or replacement, as long as –
 - (i) the necessary logbook entries have been made;
 - (ii) a placard stating “ELT not installed or carried” has been installed in a position easily visible to the flight crew; and
 - (iii) a period of 90 days is not exceeded without an ELT;
- (f) an aircraft certified for research and development purposes;
- (g) an aircraft used for showing compliance with regulations or in crew training, air racing, air display or market surveys;
- (h) aircraft with an approved seating configuration of not more than one person;
- (i) aircraft operated related to operation of non-type certificated aircraft; or
- (j) any aircraft on a flight or a series of flights for which an exemption in writing has been granted by the Executive Director.

(4) All aircraft for which the individual certificate of airworthiness is first issued after 1 July 2008 must be equipped with at least one automatic ELT.

(5) The Executive Director must maintain a register of all aircraft equipped with 406 MHz ELT, which must contain the following particulars –

- (a) the nationality and registration marks of the aircraft;
- (b) particulars of the manufacturer's designation and serial number of the aircraft;
- (c) the full name and contact details of the registered owner of the aircraft;
- (d) the make and model number of the ELT;
- (e) the 15-digit unique identification number provided by the manufacturer of the ELT or the aircraft's Mode S transponder code; and
- (f) the names and contact details of the persons who know the aircraft's itinerary and who may be contacted 24 hours a day.

(6) On the payment of the appropriate fee as provided for in Part 187, an excerpt of the ELT register must be furnished to any person who requests such an excerpt.

(7) The fee as provided for in Part 187 is payable for the registration, deregistration and changing of an ELT.

Life jackets and other flotation devices

91.04.23 (1) A person –

- (a) may not operate an aeroplane other than an aeroplane referred to in paragraph (b) –
 - (i) if the aeroplane, flying over water and beyond gliding distance of land is not capable of continuing the flight to an aerodrome with the critical power-unit becoming inoperative at any point along the route or any planned diversion; or
 - (ii) if the aeroplane when taking off or landing at an aerodrome where the take-off or approach path is disposed over water that in the event of an incident, there would be a likelihood of a ditching,

unless such aeroplane is equipped with a flotation device or a life jacket containing a survivor locator light, for each person on board, stowed in a position easily accessible, with safety belt fastened, from the seat or berth of the person for whose use it is provided, and an individual infant flotation device, containing a locator survival light for use by each infant on board;

- (b) may not operate a seaplane or amphibious aeroplane unless such seaplane or amphibious aeroplane is equipped with –
 - (i) a flotation device or a life jacket containing a survivor locator light, for each person on board, stowed in a position easily accessible, with safety belt fastened, from the seat or berth of the person for whose use it is provided, and an individual infant flotation device, containing a survivor locator light, for use by each infant on board; and

- (ii) life jackets, other than the life jackets referred to in subparagraph (i), for 20 per cent of the number of persons on board such seaplane or amphibious aeroplane, located in the passenger compartment near the emergency exits and readily accessible;
 - (c) may not operate a helicopter over water beyond autorotative distance from land, other than only for take-off and initial climb, or final approach and landing, unless –
 - (i) each person on board is wearing a life jacket containing a survivor locator light; and
 - (ii) an individual infant flotation device containing a locator survival light for use by each infant on board, stowed in a position easily accessible for the person in which care the infant is; and
 - (d) may not operate a free balloon or airship over a body of water that may pose a risk of drowning to any person on board such free balloon or airship unless the operator has put in place appropriate flotation devices or alternative drowning preventative measures.
- (2) A person may not operate the following helicopters over water unless such helicopter is certificated as an amphibian helicopter or for ditching or is equipped with permanent or rapidly deployable emergency flotation equipment –
- (a) a performance Class 3 helicopter operating below a height that would permit such helicopter to complete an autorotation to a landing on land in the event of an engine failure;
 - (b) a performance Class 1 or 2 helicopter operating in a hostile environment more than 10 minutes from land that would be unable to maintain flight to a suitable landing site in the event of an engine failure; or
 - (c) a performance Class 1 helicopter operating in a non-hostile environment at a distance from land equivalent to 30 minutes at normal cruising speed or 50 nautical miles, whichever is the lesser,

but in the case of aerial spraying operations over water, the owner or operator may apply to the Executive Director for an exemption in terms of Part 3.

- (3) A sea state must be an integral part of ditching information.

Life rafts and survival radio equipment for extended over-water flights

91.04.24 A person may not operate an aircraft over water at a distance equivalent to 30 minutes at normal cruising speed or 50 nautical miles, whichever is the lesser, away from land unless such aircraft –

- (a) is equipped with life rafts sufficient to accommodate all persons on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided; and
- (b) is equipped with the survival equipment and complies with the provisions as provided for in Document NAM-CATS-OPS 91.

Survival equipment

91.04.25 A person may not operate an aircraft over areas where search and rescue would be especially difficult, unless if such aircraft is equipped with signalling devices and the appropriate survival equipment which complies with the provisions as provided for in Document NAM-CATS-OPS 91.

Seaplanes, amphibious aeroplanes and amphibious helicopters

91.04.26 A person may not operate a seaplane, amphibious aeroplane or amphibious helicopter on water unless it is equipped with –

- (a) one life jacket or equivalent individual floatation device, for each person on board, stowed in a position readily accessible from the seat or berth;
- (b) a sea anchor and other equipment necessary to facilitate mooring, anchoring or manoeuvring such seaplane, amphibious aeroplane or amphibious helicopter on water, appropriate to its size, mass and handling characteristics; and
- (c) equipment for making the sound signals provided for in the Convention on the International Regulations for Preventing Collisions at Sea (COLREGs), adopted on the 20 October 1972 and entered into force on 15 July 1977, where applicable.

Airborne collision avoidance system

91.04.27 (1) A person may not operate an aeroplane required to be equipped with airborne collision avoidance system except if he or she has completed the training and checking as specified in Document NAM-CATS-OPS 91.

(2) The airborne collision avoidance system training must be provided through an approved training programme.

(3) If an aircraft is equipped with an airborne collision avoidance system, such system must –

- (a) meet the specifications in, and function in accordance with, the relevant provisions of Document NAM-CATS-OPS 91; and
- (b) when serviceable, always be activated during flight in all airspace, including oceanic, international, foreign and domestic airspace, even if in terms of these regulations the carriage of airborne collision avoidance system equipment is not compulsory for that particular type of aircraft or the type of operation.

(4) If an airborne collision avoidance system becomes unserviceable during flight when operation of airborne collision avoidance system is mandatory, the pilot-in-command of that aircraft must inform the responsible air traffic service unit as soon as is practical.

(5) A pilot may not act as pilot-in-command of a Namibian registered aircraft during any period while an airborne collision avoidance system is activated unless such pilot is airborne collision avoidance system -current.

(6) If a flight crew receives a traffic avoidance instruction from an air traffic service unit that is in conflict with the resolution advisory message issued by the aircraft's approved airborne collision avoidance system, the airborne collision avoidance system resolution advisory takes priority over the air traffic service unit instruction.

(7) Instructions in respect of an airborne collision avoidance system operational use and event reporting are provided for in Document NAM-CATS-OPS 91.

(8) For the purpose of this regulation, an airborne collision avoidance system -current pilot means a pilot who, –

- (a) within the immediately preceding 12 months, completed initial airborne collision avoidance system II training;
- (b) within the immediate preceding two years, completed initial airborne collision avoidance system training and subsequently completed airborne collision avoidance system II renewal training more than nine months and less than 12 months after the earlier training; or
- (c) within the immediate preceding 12 months, completed a session of airborne collision avoidance system II cyclic training.

Aircraft on high altitude flights

91.04.28 (1) A person may not operate an aircraft intended to be operated at high altitudes unless such aircraft is equipped with oxygen storage and dispensing apparatus capable of storing and dispensing oxygen supplies in terms of Document NAM-CATS-OPS 91.

(2) A person may not operate a pressurized aircraft, for which the individual certificate of airworthiness was first issued on or after 1 January 1990, above 25 000 feet unless if such aircraft is equipped with a device to provide positive warning to the flight crew of any dangerous loss of pressurization.

(3) A person may not operate a pressurized aircraft, for which the individual certificate of airworthiness was first issued before 1 January 1990, above 25 000 feet unless if such aircraft is equipped with a device to provide positive warning to the flight crew of any dangerous loss of pressurization.

Terrain awareness and warning systems

91.04.29 (1) An turbine-engine aircraft of a maximum certificated take-off mass more than 5 700 kg or authorised to carry more than nine passengers operating in instrument meteorological conditions must be equipped with a terrain awareness warning system which has a predictive terrain avoidance function that meets the requirements specified in Document NAM-CATS-OPS 91.

(2) All turbine-engined aeroplanes of a maximum certificated take-off mass of 5 700 kg or less and authorised to carry more than five but not more than nine passengers may be equipped with a ground proximity warning system which has a forward-looking terrain avoidance function.

(3) A terrain awareness warning system installed in turbine-engine aircraft of a maximum certificated take-off mass of more than 5 700 kg or authorised to carry more than nine passengers for which the individual certificate of airworthiness was first issued after 1 January 2011 must provide, as a minimum, warnings of at least the circumstances specified in subregulation (8).

(4) Except as provided for in subregulation (5), each terrain awareness warning system required under subregulation (1) must be functioning properly prior to flight.

(5) An aircraft may be operated without a functioning terrain awareness warning system –

- (a) as provided for in an approved MEL; or
 - (b) if repairs cannot be effected at the aerodrome last operated into and the aircraft is flown by the most direct routing to the nearest facility where the repairs can be made.
- (6) A terrain awareness warning system must automatically provide a timely and distinctive warning to the flight crew when the aircraft is in a potentially hazardous proximity to the earth's surface.
- (7) All piston-engined aircraft of a maximum certificated take-off mass more than 5 700 kg or authorised to carry more than nine passengers may be equipped with a ground proximity warning system which has a forward-looking terrain avoidance function.
- (8) A ground proximity warning system must provide at a minimum, warnings of at least the following conditions –
- (a) excessive descent rate;
 - (b) excessive terrain closure rate;
 - (c) excessive altitude loss after take-off or go-around;
 - (d) unsafe terrain clearance while not in landing configuration such as –
 - (i) gear not locked down;
 - (ii) flaps not in a landing position;
 - (e) excessive descent below the instrument glide path; and
 - (f) voice callout “five hundred” when the airplane descends to 500 feet above the terrain or nearest runway elevation.

SUBPART 5 COMMUNICATION, NAVIGATION AND SURVEILLANCE EQUIPMENT

Communication equipment

91.05.1 (1) A owner or operator of a aircraft may not, without prior written approval by the Executive Director, operate an aircraft in a designated airspace or under IFR unless such aircraft is equipped with radio communication equipment capable of –

- (a) two-way communication at any time during the flight on such frequencies as provided for by the appropriate authority; and
 - (b) receiving meteorological information at any time during flight.
- (2) The radio communication equipment referred to in subregulation (1) must be capable of providing communication on the aeronautical emergency frequency 121.5 MHz.
- (3) All flight crew members required to be on flight deck duty must communicate through boom or throat microphones below the transition level altitude.

(4) A owner or operator of a aircraft must ensure that a aircraft operated in accordance with the instrument flight rules or at night is provided with radio communication equipment, and such equipment must be capable of conducting two-way communication with those aeronautical stations and on those frequencies provided by the appropriate authority.

(5) If compliance with subparagraph (4) requires that more than one communication equipment unit be provided, each communication equipment must be independent of the other or others to the extent that a failure in anyone will not result in failure of any other.

(6) A owner or operator of an aircraft to be operated in accordance with VFR, but as a controlled flight, must unless if exempted by the Executive Director, ensure such aircraft is provided with radio communication equipment capable of conducting two-way communication at any time during flight with such aeronautical stations and on such frequencies as may be provided for by the appropriate authority or Executive Director.

(7) A owner or operator of an aircraft to be operated on extended flights over water or areas in which search and rescue would be especially difficult must unless if exempted by the appropriate authority, ensure such aircraft is provided with radio communication equipment capable of conducting two-way communication at any time during flight with such aeronautical stations and on such frequencies as may be provided for by the appropriate authority or Executive Director.

(8) The radio communication equipment contemplated in subregulations (4) to (7) must provide for communication on the aeronautical emergency frequency 121.5 MHz.

(9) For operations where communication equipment is required to meet an required communication performance specification for performance-based communication, the owner or operator of a aircraft must, in addition to the requirements specified in subregulations (4) to (7), ensure such aircraft –

- (a) is provided with communication equipment which will enable it to operate in accordance with the required communication performance specifications;
- (b) has information relevant to the aircraft required communication performance specification capabilities listed in the flight manual or other aircraft documentation approved by the Executive Director; and
- (c) if the aircraft is operated in accordance with an MEL, has information relevant to the aircraft required communication performance specification capabilities included in the MEL.

(10) The criteria for operations of a required communication performance specification for performance-based communication are as provided for in Document NAM-CATS-OPS Part 91.

(11) In establishing criteria for operations where a required communication performance specification for performance-based communication has been provided for, the Executive Director must require the operator or owner of an aircraft to establish –

- (a) normal and abnormal procedures, including contingency procedures;
- (b) flight crew qualification and proficiency requirements, in accordance with the appropriate required communication performance specifications;
- (c) a training programme for relevant personnel consistent with the intended operations; and

- (d) appropriate maintenance procedures to ensure continued airworthiness, in accordance with appropriate required communication performance specifications.

(12) The Executive Director must ensure that, in respect of those aircraft mentioned in subregulation (9), adequate provisions exist for –

- (a) receiving the reports of observed communication performance issued by monitoring programmes established as contemplated in Document NAM-CATS-OPS Part 91; and
- (b) taking immediate corrective action for individual aircraft, aircraft types or operators, identified in such reports as not complying with the required communication performance specifications.

Navigation equipment

91.05.2 (1) A owner or operator of a aircraft must ensure that the aircraft is provided with navigation equipment which will enable it to proceed –

- (a) in accordance with its flight plan; and
- (b) in accordance with the requirements of air traffic services,

except when, navigation for flights under VFR is accomplished by visual reference to landmarks or precluded by the Executive Director.

(2) For operations where a navigation specification for performance-based navigation is provided for in terms of Part 90, an aircraft must, in addition to the requirements specified in subregulation (1) –

- (a) be provided with navigation equipment that will enable it to operate in accordance with the prescribed navigation specifications;
- (b) have information relevant to the aircraft navigation specification capabilities listed in the flight manual or other aircraft documentation approved by the Executive Director for such operations; and
- (c) if the aircraft is operated in accordance with a MEL, have information relevant to the aircraft navigation specification capabilities included in the MEL.

(3) The criteria for operations where a navigation specification for performance-based navigation is as provided for in Document NAMCATS-OPS Part 91.

(4) In establishing criteria for operations where a navigation specification for performance-based navigation has been provided for, the Executive Director must require that the operator or owner establish –

- (a) normal and abnormal procedures including contingency procedures;
- (b) flight crew qualification and proficiency requirements, in accordance with the appropriate navigation specifications;
- (c) training for relevant personnel consistent with the intended operations; and
- (d) appropriate maintenance procedures to ensure continued airworthiness, in accordance with the appropriate navigation specifications.

(5) The Executive Director must issue a specific approval for operations based on performance-based navigation authorisation required navigation specifications.

(6) For flights in defined portions of airspace which are, based on regional air navigation agreement, and the specified minimum navigation performance specifications, an aircraft must be provided with navigation equipment which –

- (a) continuously provides indications to the flight crew of adherence to or departure from track to the required degree of accuracy at any point along that track; and
- (b) has been authorised by the Executive Director for the minimum navigation performance specifications operations concerned.

(7) An aircraft and aircraft navigation system operating in accordance with performance-based navigation requirements must be approved by the Executive Director for operation on the applicable required navigation performance routing and in required navigation performance designated airspace.

(8) An aircraft may not enter an RVSM airspace unless if –

- (a) such aircraft has a valid RVSM specific approval issued by the Executive Director as provided for in the Document NAM-CATS-OPS 91;
- (b) its minimum RVSM equipment as specified in an approved MEL is serviceable;
- (c) its flight crew has successfully completed RVSM training as provided for in Document NAM-CATS-OPS 91; and
- (d) such aircraft is operated as provided in an air traffic service unit clearance to climb or descend through RVSM airspace to or from levels above RVSM flight level band.

(9) The requirements for the issue of an RVSM specific approval, including minimum equipment, maintenance and crew training requirements are provided for in Document NAM-CATS-OPS 91.

(10) The Executive Director may issue an RVSM specific approval only if he or she is satisfied that –

- (a) vertical navigation performance capability of an aircraft satisfies the requirements specified in Document NAM-CATS-OPS 91;
- (b) an aircraft owner or operator has instituted appropriate procedures in respect of continued airworthiness, maintenance and repair practices and programmes;
- (c) an aircraft owner or operator has instituted appropriate flight crew procedures for operation in RVSM airspace;
- (d) an aircraft is provided with equipment which is capable of –
 - (i) indicating, to a flight crew, a flight level being flown;
 - (ii) automatically maintaining a selected flight level;
 - (iii) providing an alert to flight crew when a deviation occurs from a selected flight level;

- (iv) indicating the calibration of an alert system threshold which may not exceed an approximate height of 300 feet;
- (v) automatically reporting pressure-altitude; and

(e) in the event of the failure of one item of equipment at any stage of a flight, the remaining equipment will enable an aircraft to navigate in accordance with RVSM.

(11) The Executive Director may when considering an application for an RVSM specific approval, conduct an investigation considered as necessary to ascertain compliance with the requirements for RVSM operations as provided for in Document NAM-CATS-OPS 91.

(12) If the Executive Director is not so satisfied with compliance referred to in subregulation (4) the Executive Director must notify an applicant for a concerned RVSM specific approval of the reasons for such dissatisfaction and grant such applicant an opportunity to rectify any shortcoming within a determined period, after which period the Executive Director may grant or refuse the application concerned.

(13) If the Executive Director is satisfied that an applicant has complied with the relevant requirements, he or she must issue an RVSM specific approval in the format as provided for in Document NAM-CATS-OPS 91.

(14) The Executive Director must maintain a register of all RVSM specific approvals issued in terms of this regulation.

(15) A register of RVSM specific approvals referred to in subregulation (14) must contain the following particulars, which must be recorded in the register within 30 days from the date of issue of an RVSM specific approval –

- (a) make, model, and registration marks of an aircraft;
- (b) full names of the owner of the aircraft or names of an air service licence holder and an air service licence number, where applicable;
- (c) postal address of an RVSM specific approval holder; and
- (d) date on which an RVSM specific approval was issued.

(16) A register of RVSM specific approval must be kept in a safe place at the office of the Executive Director or at a location approved by the Executive Director.

(17) A person may request the Executive Director to furnish the person with a copy of a register of RVSM specific approvals referred to in subregulation (14) and the Executive Director may furnish such a copy to such a person upon the payment of the appropriate fee provided for in Part 187.

(18) A person may apply for a RVSM specific approval to the holder of such RVSM specific approval or to an AMO approved under Part 145, which is responsible for the servicing and maintenance of the concerned aircraft and such holder or AMO may issue such RVSM specific approval to that person.

(19) An application for a duplicate RVSM specific approval must –

- (a) be made in the appropriate form as provided for in Document NAM-CATS-OPS 91; and

- (b) be accompanied by –
 - (i) data package referred to in Document NAM-CATS-OPS 91; and
 - (ii) the appropriate fee as provided for in Part 187.
- (20) A holder of an RVSM specific approval must –
 - (a) report any occurrence involving poor height-keeping in an RVSM environment as specified in Document NAM-CATS 91 within 24 hours; and
 - (b) make an effective, timely response to each height-keeping error.

(21) An aircraft owner or operator authorised to operate in RVSM airspace must ensure that as a minimum each aircraft type grouping of its fleet must have their height-keeping performance monitored as defined in Document NAM-CATS 91 at least once every two years or within intervals of 1 000 flight hours per aircraft, whichever period is longer.

(22) An aircraft owner or operator found to be operating in an RVSM airspace, within or outside Namibia, without a valid specific approval must be subjected to enforcement action by the Executive Director.

Surveillance equipment

91.05.3 (1) An aircraft owner or operator must install or ensure that an aircraft is installed with surveillance equipment which will enable it to operate in accordance with the requirements of air traffic services.

(2) For operations where surveillance equipment is required to meet required surveillance performance specifications for Performance-based surveillance, an aircraft must, in addition to the requirements provided in subregulation (1) –

- (a) be provided with surveillance equipment which will enable it to operate in accordance with the required surveillance performance specifications;
- (b) have information relevant to the aircraft required surveillance performance specification capabilities listed in the flight manual or other aircraft documentation approved by the state of design or state of registry; and
- (c) have information relevant to the aircraft required surveillance performance specification capabilities included in the MEL where applicable.

(3) For operation where an required surveillance performance specification for Performance-based surveillance is provided for, an owner or operator of an aircraft must establish –

- (a) normal and abnormal procedures, including contingency procedures for such operation;
- (b) flight crew qualification and proficiency requirements, in accordance with appropriate required communication performance specifications;
- (c) a training programme for relevant personnel consistent with the intended operations;
- (d) appropriate maintenance procedures to ensure continued airworthiness in accordance with appropriate required communication performance specifications; and

- (e) a monitoring programme to receive reports of observed communication performance for submission to the Executive Director.

(4) Prior to operating an aircraft in a specific area, an operator or pilot-in-command must ensure that the aircraft is equipped with a functional Mode C, Mode S, automatic dependent surveillance-B or automatic dependent surveillance-C transponder as appropriate for the operating area concerned.

- (5) An owner or operator of an aircraft referred to in subregulation (2) must –

- (a) establish a monitoring programme; and
- (b) submit reports to the Executive Director of observed surveillance performance derived from information collected by the monitoring programme.

(6) The Executive Director must take immediate corrective action for individual aircraft, aircraft types, or operators identified in such reports as not complying with the Required surveillance performance specifications.

Installation

91.05.4 The equipment installation must be such that the failure of any single unit required for communications, navigation or surveillance purposes or any combination of such units will not result in the failure of another unit required for communications, navigation or surveillance purposes.

Electronic navigation data management

91.05.5 (1) The owner or operator of an aircraft may not employ electronic navigation data products that have been processed for application in the air and on the ground unless the state of registry has approved the operator's procedures for ensuring that the process applied and the products delivered have met acceptable standards of integrity and that the products are compatible with the intended function of the existing equipment.

(2) The state of registry must ensure that the owner or operator of an aircraft continues to monitor both the process and products.

(3) The owner or operator of an aircraft must implement procedures that ensure the timely distribution and insertion of current and unaltered electronic navigation data to all necessary aircraft.

SUBPART 6 RULES OF AIR

DIVISION ONE: APPLICABILITY AND COMPLIANCE

Applicability

91.06.1 This Subpart applies to airspace users and aircraft –

- (a) operating into, within or out of Namibia;
- (b) bearing the nationality and registration marks of Namibia and operating in any airspace to the extent that they do not conflict with the rules published by the state having jurisdiction over the territory flown over.

Flight over high seas

91.06.2 (1) For flight over the high seas, the rules specified in Annex 2 to the Chicago Convention apply without exception.

(2) For those parts of the high seas where a member state has accepted, pursuant to an ICAO regional air navigation agreement, the responsibility of providing air traffic services, a member state must designate the air traffic service provider for providing those services.

Compliance with rules of air and air traffic control clearances and instructions

91.06.3 (1) The operation of an aircraft either in flight or on the movement area of an aerodrome must comply with the general rules in this Sub-part and, in addition, when in flight, either in compliance with VFR or IFR.

(2) The pilot of an aircraft must –

(a) comply with any air traffic control clearance which is obtained from an air traffic service unit, unless the pilot obtains an amended clearance from that air traffic service unit;

(b) operate the aircraft in accordance with any instruction issued by an air traffic service unit in an area in which an air traffic control service is provided; and

(c) when deviating from an air traffic control clearance or instruction, notify the air traffic service unit of the deviation, as soon as practicable.

(3) The pilot of an aircraft must include the information specified in Document NAM-CATS-OPS 91 when requesting a deviation from an air traffic control clearance or flight planned altitude or route.

(4) Nothing in these regulations relieves the pilot-in-command of an aircraft from the responsibility of taking such action, including collision avoidance manoeuvres based on resolution advisories by airborne collision avoidance system equipment, as will best avert a collision.

Responsibility for compliance with rules of air

91.06.4 (1) The pilot-in-command of an aircraft must, whether manipulating the controls or not, be responsible for the operation of the aircraft in accordance with the rules of the air, except that the pilot-in-command may depart from these rules in emergency circumstances that render such departure necessary in the interests of safety.

(2) The pilot-in-command of an aircraft must before beginning a flight, be familiar with all available information appropriate to the intended operation, such as preflight action for flights away from the vicinity of an aerodrome, all IFR flights, a careful study of available current weather reports and forecasts, taking into consideration fuel requirements and an alternative course of action if the flight cannot be completed as planned.

Authority of pilot-in-command

91.06.5 (1) The pilot-in-command is responsible for the operations and safety of the aircraft and for the safety of all persons on board, during flight.

(2) The pilot-in-command of an aircraft must have final authority as to the disposition of the aircraft while in command.

(3) All persons on board an aircraft must obey all lawful commands given by the pilot-in-command of the aircraft for the purpose of ensuring the safety and security of such aircraft, of persons or property to enable good order and discipline on board the aircraft.

Problematic use of psychoactive substances

91.06.6 (1) A person whose function is critical to the safety of aviation (safety-sensitive personnel) may not undertake that function while under the influence of any psychoactive substance, by reason of which human performance is impaired.

(2) The person referred to in subregulation (1) may not engage in any kind of problematic use of substances.

DIVISION TWO: GENERAL RULES AND COLLISION AVOIDANCE

Negligent or reckless operation of aircraft

91.06.7 The pilot-in-command may not operate an aircraft in a negligent or reckless manner so as to endanger the life or property of others.

Minimum heights

91.06.8 (1) The pilot-in-command may not fly an aircraft over the congested areas of cities, towns or settlements or over an open-air assembly of persons, except –

- (a) when necessary for take-off or landing;
- (b) by permission from the appropriate authority; or
- (c) if such aircraft is flown at such a height as will permit, in the event of an emergency arising and a landing to be made, is without undue hazard to persons or property on the surface.

(2) The pilot-in-command of an aircraft must, in addition to the requirements of this regulation, comply with any altitude restrictions provided for in the area or route to be operated within or over the area referred to in regulations 91.06.32 and 91.06.37.

Cruising levels

91.06.9 (1) The cruising levels at which a flight or a portion of a flight is to be conducted must be in terms of –

- (a) flight levels, for flights at or above the lowest usable flight level or, where applicable, above the transition altitude;
- (b) altitudes, for flights below the lowest usable flight level or, where applicable, at or below the transition altitude.

(2) The pilot-in-command of an aircraft in level flight must fly at an altitude or flight level, as appropriate, selected according to magnetic track from the table provided for in Document NAM-CATS-OPS 91, unless if directed otherwise by an air traffic service unit.

(3) The pilot-in-command flying an aircraft in accordance with VFR at a height of less than 1 500 feet above the surface, is not required to comply with the provisions of subregulation (2), unless if directed otherwise by an air traffic service unit.

Dropping objects, spraying or dusting

91.06.10 Except in an emergency or unless granted special permission by the Executive Director or approved by an air traffic service unit, an article may not be dropped from an aircraft in flight unless such article is –

- (a) fine sand or clean water used as ballast; or
- (b) chemical substances for the purpose of spraying, dusting or cloud seeding.

Towing

91.06.11 The pilot-in-command of an aircraft in flight may not permit anything to be towed by the aircraft except with the prior written approval of the Executive Director and as indicated by relevant information, advice or clearance from the appropriate air traffic service unit.

Parachute descents

91.06.12 Parachute descents, other than emergency descents, may only be made as contemplated in –

- (a) Part 105; and
- (b) as indicated by any relevant information, advice or clearance from the appropriate air traffic services unit.

Acrobatic flight

91.06.13 An aircraft may not be flown acrobatically except under conditions provided for under regulation 91.07.30 and as indicated by relevant information, advice or clearance from the appropriate air traffic services unit.

Formation flights

91.06.14 (1) A person may not operate an aircraft in formation flight while carrying passengers for commercial purposes in such proximity to other aircraft so as to create a collision or hazard, except –

- (a) as provided for in subregulation (2), –
 - (a) by arrangement with the pilot-in-command of each aircraft in the formation.
- (2) The formation of flight in controlled airspace may be approved by an air traffic service unit, except where –
 - (a) the formation operates as a single aircraft with regard to navigation and position reporting;
 - (b) separation between aircraft in the flight is the responsibility of the flight leader and the pilots-in-command of the other aircraft in the flight and must include periods of transition when aircraft are manoeuvring to attain their own separation within the formation and during join-up and breakaway; and
 - (c) a distance not exceeding 1 kilometre 0.5nm (nautical mile) laterally and longitudinally and 30 metre (100 ft) vertically from the flight leader is maintained by each aircraft.

- (3) Formation flight for display purposes may be approved by the Executive Director.

Unmanned free balloons

91.06.15 An unmanned free balloon must be operated in such a manner as to minimise hazards to persons, property or other aircraft and in accordance with Part 102 Operation of free balloons.

Prohibited areas and restricted areas

91.06.16 (1) The Executive Director may give notice in the AIP of an area that is designated as a prohibited area or restricted area as contemplated in Subpart 5 of Part 71 and must in such notice specify—

- (a) a height above the ground surface of such area; or
- (b) an altitude in respect of such area, as the Executive Director may consider expedient, in the notice in question.

(2) A person may not fly any aircraft in the air space above a prohibited area –

- (a) below the height specified in terms of subregulation (1)(a); or
- (b) below the altitude specified in terms of subregulation (1)(b), in respect of the prohibited area in question.

(3) The Executive Director may by notice in the AIP declare any area to be a restricted area and must, when so declaring an area to be a restricted area, specify in such notice –

- (a) the nature and extent of the restriction applicable in respect of the area in question; and
- (b) the authorisation under which flights in such restricted area are permitted.

(4) A person may not, in contravention of a restriction contemplated in subregulation (3), fly any aircraft to which the said restriction applies, in any restricted area, unless the flight in question has been permitted by virtue of an authorisation contemplated in subregulation (3).

Proximity

91.06.17 The pilot - in - command may operate an aircraft in such proximity to other aircraft as to create a collision hazard.

Right of way

91.06.18 (1) An aircraft which has the right-of-way, must maintain its heading and speed, but nothing in these regulations relieves the pilot-in-command of an aircraft from the responsibility of taking such action as will best avert collision, including collision avoidance manoeuvres based on resolution advisories provided by airborne collision avoidance system equipment.

(2) An aircraft which is obliged, by provisions of this Subpart, keep out of the way of another aircraft, must avoid passing over or under the other aircraft, or crossing ahead of such aircraft, unless passing is well clear, taking into account the effects of wake turbulence.

- (3) If two aircraft are approaching head-on or approximately so and there is danger of collision, each aircraft must alter its heading to the right.
- (4) If two aircraft are converging at approximately the same level, the aircraft which has the other aircraft on its right, must give way, except in the following circumstances –
- (a) a power-driven heavier-than-air aircraft must give way to airships, gliders and balloons;
 - (b) an airship must give way to gliders and balloons;
 - (c) gliders must give way to balloons;
 - (d) a power-driven aircraft must give way to aircraft which are –
 - (i) seen to be towing other aircraft or objects;
 - (ii) carrying an underslung load or are engaged in winching operations; and
 - (iii) being towed or tethered.
- (5) An aircraft which is being overtaken has the right-of-way and the overtaking aircraft, whether climbing, descending or in horizontal flight, must keep out of the way of the overtaken aircraft by altering its heading to the right, and no subsequent change in the relative positions of the two aircraft may absolve the overtaking aircraft from its obligation until such aircraft is entirely past and clear, on condition that where a right-hand circuit is being followed at an aerodrome, the overtaking aircraft must alter its heading to the left.
- (6) An aircraft in flight or operating on the ground or water, must give way to other aircraft landing or on final approach to land.
- (7) If two or more heavier-than-air aircraft are approaching an aerodrome for the purpose of landing, the aircraft at the higher level must give way to the aircraft at the lower level, but –
- (a) the latter aircraft may not take advantage of this provision to cut in front of another aircraft which is on final approach to land or to overtake such aircraft; and
 - (b) power-driven heavier-than-air aircraft must give way to gliders in all circumstances.
- (8) An aircraft about to take-off, may not attempt to do so until there is no apparent risk of collision with other aircraft.
- (9) An aircraft which is aware that another aircraft is compelled to land, must give way to such aircraft.
- (10) An aircraft taxiing on the manoeuvring area of an aerodrome must give way to aircraft taking off or about to take off.
- (11) For the purposes of this regulation, an overtaking aircraft is an aircraft which approaches another aircraft from the rear on a line forming an angle of less than 70 degrees with the plane of symmetry of the latter aircraft and will be in such position with reference to the other aircraft, that by night it may not be able to see either of the other aircraft's wingtip navigation lights.
- (12) In case of danger of collision between two aircraft taxiing on the movement area of an aerodrome or equivalent part of an operating site, the following apply –

- (a) when two aircraft are approaching head on, or approximately so, each aircraft must stop or where practicable alter its course to the right so as to keep well clear;
- (b) when two aircraft are on a converging course, the one which has the other on its right must give way;
- (d) an aircraft which is being overtaken by another aircraft must have the right-of-way and the overtaking aircraft must keep well clear of the other aircraft.
- (c) an aircraft taxiing on the manoeuvring area must stop and hold at all runway-holding positions unless an explicit clearance to enter or cross the runway has been issued by the aerodrome control tower.

(13) An aircraft taxiing on the manoeuvring area of an aerodrome must stop and hold at all lighted stop bars and may proceed further when the stop bar lights are switched off.

Lights to be displayed by aircraft

91.06.19 (1) All aircraft must, except as contemplated in subregulation (4) and unless the aircraft was initially type-certificated without such lights or is a non-type certificated aircraft approved without such lights, display –

- (a) while operating in flight during the day and at all times at night, anti-collision lights intended to attract attention to such aircraft;
- (b) while operating during night, navigation lights intended to indicate the relative path of the aircraft to an observer;
- (c) while operating on the movement area of an aerodrome, lights intended to attract attention to the aircraft, as specified in the IAIP; and
- (d) while operating with engines running on the movement area of an aerodrome, a rotating beacon to indicate that fact.

(2) All aircraft on the movement area of an aerodrome during night must, except as provided by subregulation (4), display –

- (a) navigation lights intended to indicate the relative path of the aircraft to an observer; and
- (b) lights intended to indicate the extremities of their structure, unless stationary and otherwise adequately illuminated.

(3) An aircraft's other lights may not be displayed if they are likely to be mistaken for the lights referred to in subregulations (1)(b) and (2)(a).

(4) A pilot is permitted to switch off or reduce the intensity of any flashing lights fitted in order to meet the requirements of subregulations (1), (2) and (3) if they do or are likely to –

- (a) adversely affect the satisfactory performance of duties; or
- (b) subject an outside observer to harmful dazzle.

(5) The lights which must be displayed by aircraft by day, night, on water or on the manoeuvring area of an aerodrome, is provided for in Document NAM-CATS-OPS 91.

Simulated instrument flights in aircraft

91.06.20 (1) The owner or operator of an aircraft must ensure that no person operates the aircraft in simulated instrument flight in VMC unless –

- (a) the other aircraft control seat is occupied by a safety pilot who possesses at least a private pilot license with category and class ratings appropriate to the aircraft being flown;
- (b) the safety pilot has adequate vision forward to each side of the aircraft or there is a competent observer in the aircraft who adequately supplements the vision of the safety pilot; and
- (c) the aircraft is fitted with fully functioning dual controls, except that the simulated instrument flight may be conducted in a single-engine aircraft, equipped with a single, functioning throw-over control wheel in place of fixed dual controls of the elevator and ailerons, if –
 - (i) the safety pilot has determined that the flight can be conducted safely; and
 - (ii) the person manipulating the controls has at least a PPL with appropriate category, class and type ratings.

(2) If a simulated instrument flight takes place at night in VMC, the safety pilot must be the holder of a valid instrument rating.

(3) If a simulated instrument flight is being practised for the purpose of obtaining an instrument rating, the safety pilot must be an appropriately rated flight instructor.

Operation on and in vicinity of aerodrome

91.06.21 (1) The pilot-in-command of an aircraft operated on or in the vicinity of an aerodrome, is responsible for compliance with the following rules –

- (a) observe other aerodrome traffic for the purpose of avoiding collision;
- (b) conform with or avoid the pattern of traffic formed by other aircraft in operation;
- (c) make all turns to the left when approaching for a landing and after taking off, unless otherwise instructed by an air traffic service unit or unless a right-hand circuit is in force, but a helicopter may, with due regard to other factors and when it is in the interest of safety, execute a circuit to the opposite side;
- (d) land and take off, as far as practicable, into the wind unless the safety, the runway configuration or air traffic considerations dictate that a different direction is preferable or unless instructed otherwise by an air traffic service unit; and
- (e) fly across the aerodrome or its environs at a height of not less than 2 000 feet above the level of such aerodrome, on condition that if circumstances require such pilot-in-command to fly at a height of less than 2 000 feet above the level of the aerodrome, he or she must conform with the traffic pattern at such aerodrome.

(2) If an aerodrome control tower is in operation, the pilot-in-command must also, while the aircraft is within the aerodrome traffic zone –

- (a) maintain a continuous radio watch on the frequency of the aerodrome control tower responsible for providing aerodrome control services at the aerodrome, establish two-way radio communication as necessary for aerodrome control purposes and obtain such clearances for his or her movements as may be necessary for the protection of aerodrome traffic; and
 - (b) if the requirements referred to in subparagraph (a) are not possible, keep a watch for and comply with such clearances and instructions as may be issued by visual means.
- (3) If an aerodrome flight information service unit is in operation, the pilot-in-command must also, whilst the aircraft is within the aerodrome traffic zone –
- (a) maintain a continuous radio watch on the frequency of the aerodrome flight information service unit responsible for providing aerodrome flight information service at the aerodrome, establish two-way radio communication as necessary for aerodrome flight information service purposes, obtain information in respect of the surface wind, runway in use and altimeter setting and in respect of aerodrome traffic on the manoeuvring area and in the aerodrome traffic zone; or
 - (b) if the requirements referred to in subparagraph (a) are not possible, keep a watch for visual signals which may be displayed or may be issued by the aerodrome flight information service unit.
- (4) An aircraft which is unable to communicate by radio must, before landing at an aerodrome, make a circuit of the aerodrome for the purpose of observing the traffic, and reading such ground markings and signals as may be displayed thereon, unless if it has the consent of the appropriate air traffic service unit to do otherwise.

Water operations

91.06.22 (1) If two aircraft or an aircraft and a vessel are approaching one another and there is a risk of collision, the aircraft must proceed with careful regard to the existing circumstances and conditions including the limitations of the respective aircraft.

(2) An aircraft which has another aircraft or a vessel on its right must give way so as to keep well clear of such other aircraft or vessel.

(3) An aircraft approaching another aircraft or a vessel head-on or approximately so, must alter its heading to the right to keep well clear of such other aircraft or vessel.

(4) An aircraft or vessel which is being overtaken has the right of way, and the one overtaking must alter its heading to keep well clear of such other aircraft or vessel.

(5) Aircraft landing on or taking off from the water must, insofar as practicable, keep well clear of all vessels and avoid impeding their navigation.

(6) All aircraft on the water must display lights between sunset and sunrise as provided for in Document NAM-CATS-OPS 91.

(7) In areas in which the Convention on the International Regulations for Preventing Collisions at Sea (COLREGs), adopted on the 20 October 1972 and entered into force on 15 July 1977, are in force, aircraft operated on the water must comply with the provisions of the that convention.

Submission of a flight plan

91.06.23 (1) The owner or operator of an aircraft must ensure that an ATS flight plan is completed if required in terms of subregulation (4).

(2) The items to be contained in the ATS flight plan must be as provided for in NAM-CATS-OPS 91.

(3) The ATS flight plan must be filed with the appropriate air traffic service unit unless other arrangements have been made for submission of repetitive flight plans and such unit is responsible for transmitting such ATS flight plan to all air traffic service unit concerned with the flight.

(4) The ATS flight plan must be filed prior to operating –

(a) all flights to be conducted in a controlled or advisory airspace, except that this requirement may not apply in respect of –

(i) a local flight;

(ii) a flight crossing an airway or advisory routes at right angles; or

(iii) a VFR flight entering or departing from an aerodrome traffic zone or control zone, from or to an unmanned aerodrome and if no other controlled or advisory airspace will be entered during the flight;

(b) an international flight;

(c) all flights undertaken for the purposes of commercial air transport operations issued in terms of the Air Services Act;

(d) any flight within or into a designated area or along designated routes, if required by the appropriate ATS authority in order to facilitate the provision of flight information, alerting and search and rescue services; and

(e) any flight within or into designated areas, or along designated routes, when so required by the appropriate ATS authority in order to facilitate coordination with the appropriate military units or with air traffic service units in adjacent states in order to avoid the possible need for interception for the purpose of identification.

(5) An air traffic service unit may instruct a flight for which an ATS flight plan is required in terms of subregulation (4) and for which an ATS flight plan has not been filed, to clear or to remain clear of controlled airspace, and not to cross the border of Namibia or to enter its airspace until such time as the required ATS flight plan has been filed.

(6) Unless otherwise authorised by the responsible air traffic service unit, an ATS flight plan for a flight to be conducted in controlled or advisory airspace must be filed –

(a) for domestic flights, at least 30 minutes before departure;

(b) for international flights, at least 60 minutes before departure; or

(c) if filed during flight while outside controlled or advisory airspace for a flight to be conducted in such airspace, it must be filed with the responsible air traffic service unit at least 10 minutes before the aircraft is estimated to reach the intended point of

entry into the controlled or advisory airspace or the point of crossing the airway or advisory route.

- (7) The pilot-in-command of an aircraft operating –
- (a) an IFR or controlled VFR flight must ensure that all changes which become applicable to an ATS flight plan before departure or in flight are reported, as soon as practicable, to the responsible air traffic service unit;
 - (b) other VFR flights, changes regarding fuel endurance or total number of persons carried on board must be, as a minimum, reported to the responsible air traffic service unit .

(8) If an ATS flight plan has been filed with an air traffic service unit prior to departure and is not activated with an air traffic service unit within one hour of original estimated time of departure or amended estimated time of departure, the ATS flight plan must be regarded as cancelled and a new ATS flight plan must be filed.

(9) If an air traffic service unit is not in operation at the aerodrome of intended landing, the pilot-in-command must submit a report of arrival as provided for in Document NAM-CATS-OPS 91 must be submitted to an air traffic service unit , by the quickest means of communication available, immediately after landing, in respect of a flight for which an ATS flight plan was submitted and not as yet closed or for which search and rescue notification was requested and designated with a particular air traffic service unit .

Closing of a flight plan

91.06.24 (1) If communication facilities at the arrival aerodrome are inadequate and alternate arrangements for the handling of arrival reports on the ground are not available, the pilot -in-command must, prior to landing the aircraft or immediately after landing such aircraft, if practicable, transmit to the appropriate air traffic service unit, a message comparable to an arrival report, in respect of a flight for which an ats flight plan was submitted and not as yet closed or for which a search and rescue notification was requested with a nominated air traffic service unit .

(2) Subject to regulation 91.06.25 (1), the pilot-in command must ensure that the aircraft adheres to the current ATS flight plan filed for a controlled flight, unless –

- (a) a request for a change has been made and accepted by the air traffic service unit responsible for the controlled airspace in which the aircraft is operating; or
- (b) an emergency arises which necessitates immediate action, in which event the responsible air traffic service unit must, as soon as circumstances permit, be notified of the action taken and that such action was taken under emergency authority.

Changes to a flight plan

91.06.25 (1) In the event of a controlled flight inadvertently deviating from its current ATS flight plan, the pilot-in command must –

- (a) if the aircraft is off track, adjust the heading of an aircraft to regain track as soon as practicable;
- (b) if the aircraft deviates from an ATC clearance with an assigned Mach number or indicated airspeed, inform an appropriate air traffic service unit immediately;

- (c) if the aircraft deviates from an assigned Mach number by approximately Mach 0.02 or from true airspeed by approximately 10 knot, inform an appropriate air traffic service unit;
 - (d) except where automatic dependent surveillance-contract is activated, serviceable and usable, notify an appropriate air traffic service unit as soon as possible if the time estimate for the next applicable reporting point, flight information region boundary or destination aerodrome, whichever comes first changes in excess of two minutes, or such other period of time as is determined by an appropriate ATS provider; and
 - (e) if the aircraft deviates from its altitude, take action to correct such altitude deviation.
- (2) If an automatic dependent surveillance agreement is in place, the pilot-in-command must inform the air traffic service unit automatically via data link whenever changes occur beyond the threshold values stipulated by the automatic dependent surveillance event contract.
- (3) If prior to departure it is anticipated that, subject to a re-clearance in flight, a decision may be taken to proceed to a revised destination aerodrome, the appropriate air traffic service units must be so notified by the insertion in the flight plan of information concerning the revised route, where known, and the revised destination.
- (4) The revised destination referred to in subregulation (3) must be subject to the fuel and oil provisions referred to in regulation 91.07.12.

Signals

- 91.06.26** (1) The pilot-in-command of an aircraft in flight must, upon observing or receiving any of the signals as provided for in Document NAM-CATS-OPS 91, take such action as may be required by the interpretation of the signal as provided for in Document NAM-CATS-OPS 91.
- (2) A person may not perform the functions of a signalperson unless trained and qualified to carry out such functions as contained in Document NAM-CATS-OPS 91.
- (3) A person acting as a signalperson is responsible for providing the standard marshalling signals to aircraft in a clear and precise manner, as provided for in Document NAM-CATS-OPS 91.

Use of time

- 91.06.27** (1) For the purposes of reporting and recording time, coordinated universal time must be used and must be expressed in hours and minutes and, when required, seconds of the 24-hour day beginning at midnight.
- (2) A time check must be obtained from an air traffic services unit, if possible, prior to operating a controlled flight and at such other times during the flight as may be necessary.
- (3) If time is utilised in the application of data link communications, it must be accurate to within 1 second of coordinated universal time.

DIVISION THREE: AIR TRAFFIC CONTROL SERVICE

Air traffic control clearance

- 91.06.28** (1) An air traffic control clearance must be obtained prior to operating a controlled flight or a portion of a flight as a controlled flight and such clearance must be requested through the submission of a flight plan to an air traffic control unit if required under 91.06.23.

(2) If an aircraft has requested a clearance involving priority, the pilot-in-command must, if requested by the appropriate air traffic service unit, submit a report explaining the necessity for such priority.

(3) If prior to departure, the pilot-in-command or a person authorised by an operator anticipates that depending on fuel endurance and subject to re-clearance in flight, he or she may make a decision to proceed to a revised destination aerodrome, that pilot-in-command or a person authorised by an operator must notify the appropriate air traffic control units by the insertion in the flight plan of the information concerning the revised route and the revised destination.

(4) An aircraft operated on a controlled aerodrome may not taxi on the manoeuvring area without clearance from the aerodrome control tower and must comply with any instructions given by that air traffic service unit.

Adherence to current flight plan

91.06.29 (1) The pilot-in-command of an aircraft must adhere to the current flight plan or the applicable portion of a current flight plan submitted for a controlled flight except –

- (a) as provided for in subregulation (7);
- (b) if a request for a change has been made and clearance obtained from the appropriate air traffic control unit; or
- (c) if an emergency arises which requires immediate action by the aircraft, in which event as soon as circumstances permit, after such emergency authority is exercised, the pilot-in-command must notify the appropriate air traffic services of the action taken and that this action has been taken under emergency authority.

(2) Unless otherwise authorised by the appropriate ATS authority or directed by the appropriate air traffic control unit, controlled flights must, insofar as practicable –

- (a) when on an established ATS route, operate along the defined centre line of that route; or
- (b) when on any other route, operate directly between the navigation facilities or points defining that route.

(3) An aircraft operating along an ATS route segment defined by reference to VHF omnidirectional radio ranges must change over for its primary navigation guidance from the facility behind the aircraft to that ahead of it at or as close as operationally feasible to, the changeover point, where established.

(4) If the pilot-in-command deviates from the requirements of subregulation (6)(b) he or she must notify the appropriate air traffic services unit.

(5) If the pilot-in-command inadvertently deviates a controlled flight from its current flight plan, such pilot-in-command must take the following action –

- (a) if the aircraft is off track, that pilot-in-command must adjust the heading of the aircraft to regain track as soon as practicable;
- (b) if the average true airspeed at cruising level between reporting points varies or is expected to vary by plus or minus five percent of the true airspeed, from that given in the flight plan, such pilot-in-command must inform the appropriate air traffic unit;

- (c) if the time estimate for the next applicable reporting point, flight information region boundary or destination aerodrome, whichever comes first, is found to be in error in excess of three minutes from that notified to air traffic services or such other period of time as is provided for by the appropriate ATS authority or on the basis of air navigation regional agreements, the pilot-in-command of an aircraft must as soon as possible notify the appropriate air service traffic unit of a revised estimated time; or
- (d) if an automatic dependent surveillance agreement is in place, the pilot-in-command of an aircraft must inform the air traffic services unit automatically via data link whenever changes occur beyond the threshold values stipulated by the automatic dependent surveillance event contract.
- (6) A request for flight plan changes must include the following information –
 - (a) change of cruising level, aircraft identification, requested new cruising level and cruising speed at this level and revised time estimates when applicable at subsequent flight information region boundaries;
 - (b) change of route: destination unchanged:
 - (i) aircraft identification;
 - (ii) flight rules;
 - (iii) description of new route of flight including related flight plan data beginning with the position from which requested change of route is to commence;
 - (iv) revised time estimates; and
 - (v) any other pertinent information;
 - (c) change of route: destination changed:
 - (i) aircraft identification;
 - (ii) flight rules;
 - (iii) description of revised route of flight to revised destination aerodrome including related flight plan data, beginning with the position from which requested change of route is to commence;
 - (iv) revised time estimates;
 - (v) alternate aerodrome; and
 - (vi) any other pertinent information.
- (7) If it becomes evident that flight in VMC in accordance with its current flight plan will not be practicable, the pilot-in-command of an aircraft with a VFR flight operated as a controlled flight must –
 - (a) request an amended clearance enabling the aircraft to continue in VMC to destination or to an alternative aerodrome or to leave the airspace within which an ATC clearance is required;

- (b) if a clearance in accordance with paragraph (a) cannot be obtained, continue to operate in VMC and notify the appropriate ATC unit of the action being taken either to leave the airspace concerned or to land at the nearest suitable aerodrome;
 - (c) if operated within a controlled zone, request authorisation to operate as a special VFR flight; or
 - (d) request clearance to operate in accordance with the instrument flight rules.
- (8) The pilot-in-command flying in controlled airspace, in advisory airspace or on a flight for which alerting action is being provided must ensure that –
- (a) that reports are made to the responsible air traffic service unit, as soon as possible, of the time and level of passing each compulsory reporting point, together with any other required information;
 - (b) position reports are similarly made in relation to additional reporting points, if so requested by the responsible air traffic service unit; and
 - (c) in the absence of designated reporting points, position reports are made at the intervals specified by the responsible air traffic service unit or published by the Executive Director in terms of Part 175 for that area.
- (9) The pilot-in-command of a controlled flight providing position information to the appropriate air traffic service unit, via data link communications may only provide voice position reports when requested.
- (10) The pilot-in-command of a controlled flight must, except when landing at a controlled aerodrome, advise the appropriate ATC unit as soon as it ceases to be subject to air traffic control service.
- (11) The pilot-in-command of an aircraft must ensure that –
- (a) before the aircraft enters a controlled airspace, two-way radio contact is established with the responsible air traffic service unit on the designated radio frequency; and
 - (b) while the aircraft is within, and until it leaves, the controlled airspace, that continuous radio watch is maintained on such designated radio frequency and that such further two-way radio communication as such air traffic service unit may require, is established except that –
 - (i) the air traffic service unit may permit an aircraft not capable of maintaining continuous two-way radio communication, to fly in the control area, terminal control area, control zone or aerodrome traffic zone for which it is responsible, if traffic conditions permit, in which case the flight must be subject to such conditions as such air traffic service unit considers necessary to ensure the safety of other air traffic; and
 - (ii) in the case of radio failure, a flight for which an air traffic service flight plan was filed and activated by the air traffic service unit on receipt of a departure time, may continue in controlled airspace, if the communication failure procedures specified in Document NAM-CATS-OPS 91 are complied with.
- (12) The pilot-in-command of an aircraft must ensure that before the aircraft approaches or enters an advisory airspace –

- (a) two-way radio communication with the responsible air traffic service unit is established on the designated radio frequency;
 - (b) if such communication is not possible, two-way radio communication is established with any air traffic service unit which is capable of relaying messages to and from the responsible air traffic service unit; or
 - (c) if such communication is not possible, broadcasts are made on the designated radio frequency giving information on the aircraft's intention to enter the airspace, and such pilot-in-command must ensure that, while the aircraft is within the advisory airspace and until it departs there from, a continuous radio watch is maintained on the designated radio frequency and that –
 - (i) such further two-way radio communication as the responsible air traffic service unit may require, is established with any other air traffic service unit which is capable of relaying messages to and from such responsible air traffic service unit;
 - (ii) if such communication is not possible, such further two-way radio communication is established with any other air traffic service unit which is capable of relaying messages to and from the responsible air traffic service unit, as such responsible air traffic service unit may require; or
 - (iii) if such communication is not possible, broadcasts are made on the designated radio frequency giving information on passing reporting points and when leaving the airspace concerned, except that –
 - (aa) an aircraft maintaining a Selcal watch while operating within an advisory route in the Namibian flight information region and whose Selcal callsign has been communicated to the Namibian flight information centre, is considered to be maintaining a continuous radio watch; and
 - (ab) in the case of a radio failure, a flight for which an air traffic service flight plan was filed and activated by an air traffic service unit on receipt of a departure time, may continue in advisory airspace if the communication failure procedures specified in Document NAM-CATS-OPS 91 are complied with.
- (13) If there is a communication failure, the pilot-in-command of an aircraft must comply with the voice communication failure procedures provided for in Document NAM-CATS-OPS 91 and comply with the following procedures as appropriate –
- (a) the pilot-in-command aircraft must attempt to establish communications with the appropriate air traffic control unit using all other available means;
 - (b) the pilot-in-command aircraft, when forming part of the aerodrome traffic at a controlled aerodrome, must keep a watch for such instructions as may be issued by visual signals;
 - (c) If in VMC, the pilot-in-command aircraft must continue to fly in visual meteorological conditions, land at the nearest suitable aerodrome and report its arrival by the most expeditious means to the appropriate air traffic control unit;

- (d) If in instrument meteorological conditions, or when the pilot of an IFR flight considers it inadvisable to complete the flight in accordance with VMC conditions, the pilot-in-command aircraft must –
- (i) in the airspace where radar is not used in the provision of air traffic control, maintain the last assigned speed and level or minimum flight altitude if higher, for a period of 20 minutes following the aircraft's failure to report its position over a compulsory reporting point and thereafter adjust level and speed in accordance with the filed flight plan;
 - (ii) in airspace where radar is used in the provision of air traffic control, maintain the last assigned speed and level or minimum flight altitude if higher, for a period of seven minutes following:
 - (aa) the time the last assigned level or minimum flight altitude is reached; or
 - (ab) the time the transponder is set to Code 7600;
 - (ac) the aircraft's failure to report its position over a compulsory reporting point;

whichever is later, and thereafter adjust level and speed in accordance with the filed flight plan;

- (iii) when being radar vectored or having been directed by ATC to proceed offset using RVAV without a specified limit, rejoin the current flight plan route no later than the next significant point, taking into consideration the applicable minimum flight altitude;
- (iv) proceed according to the current flight plan route to the appropriate designated navigation aid or fix serving the destination aerodrome and, when required to ensure compliance with paragraph (v), hold over this aid or fix until commencement of descent;
- (v) commence descent from the navigation aid or fix specified in paragraph (iv) at, or as close as possible to, the expected approach time last received and acknowledged or if no expected approach time has been received and acknowledged, as close as possible to, the estimated time of arrival resulting from the current flight plan;
- (vi) complete a normal instrument approach procedure as specified for the designated navigation aid or fix; and
- (vii) land, if possible, within 30 minutes after the estimated time of arrival specified in subparagraph (v) or the last acknowledged expected approach time, whichever is later.

Unlawful interference

91.06.30 (1) The pilot-in-command of an aircraft which is being subjected to unlawful interference –

- (a) must notify the appropriate air traffic service unit of the unlawful interference, any significant circumstances associated with such interference and any deviation from the current flight plan necessitated by the unlawful interference, in order to enable the air traffic service unit to give priority to the aircraft and to minimise conflict with other aircrafts;

- (b) must attempt to land as soon as practicable at the nearest suitable aerodrome or at a dedicated aerodrome assigned by the appropriate authority unless considerations aboard the aircraft dictate otherwise; and
- (o) immediately report the unlawful interference unless he or she is unable to, in which case the owner or operator of the aircraft must report the act of unlawful interference with the operation of the aircraft or the appropriate authority of the pilot-in-command –
 - (i) if the act of unlawful interference occurs within Namibia, to the Executive Director; or
 - (ii) if the act of unlawful interference occurs within or over the territory of a foreign state, to the appropriate authority of the state and the Executive Director;

(2) The pilot-in-command of an aircraft, that is equipped with a flight deck door, must always ensure that from the moment the passenger entry doors are closed in preparation for departure until they are opened on arrival, that the flight deck door is closed and locked from within the flight deck.

VMC visibility and distance from cloud

91.06.31 (1) A VFR flight must be conducted in a manner that the aircraft is flown with visual reference to the surface by day and to identifiable objects by night and at no time above more than three eighths of cloud within a radius of five nautical miles of such aircraft and –

- (a) in the case of aircraft excluding helicopters, operating under conditions of visibility and distance from cloud equal to, or greater than, the conditions specified in Tables 1 and 2 apply, except that the minima specified in Table 1 are not applicable when entering or leaving a control zone and the flight has received clearance from an air traffic service unit to operate under Special VFR minima as referred to in regulation 91.06.34; and

Table 1

Airspace	Forward Flight visibility	Distance from clouds	Ground visibility and ceiling
Control zones	Five kilometres	Horizontally: 600 metres Vertically: 500 feet	A aircraft may not take-off from, land at, or approach to land at an aerodrome or fly within the control zone when the ground visibility at the aerodrome concerned is less than five km and the ceiling is less than 1 500 feet. ⁽¹⁾
Within an aerodrome traffic zone (which does not also comprise a control zone or part of a control zone)	Five kilometres	Horizontally: 600 metres Vertically: 500 feet	A aircraft may not take-off from, land at or approach to land at an aerodrome or fly within the aerodrome traffic zone when the ground visibility within such aerodrome traffic zone is less than five km and the ceiling is less than 1500 feet.

Table 2
In Airspaces other than those specified in Table 1

Airspace class	Altitude band	Forward Flight visibility	Distance from cloud
C F G	At and above 10 000 feet above MSL	eight kilometres	1 500 metre horizontally 1 000 feet vertically
C F G	Below 10 000 feet AMSL and above 3 000 ft above MSL, or above 1 000 feet above terrain, whichever is the higher	five kilometres	1 500 metre horizontally 1 000 feet vertically
C	At and below 3 000 feet above MSL, or 1 000 feet above terrain, whichever is the higher	five kilometres	1 500 metre horizontally 1 000 ft vertically
F G		five kilometres	Clear of cloud and with the surface in sight

- (b) in the case of helicopters, under conditions of visibility and distance from cloud equal to, or greater than, those conditions specified in Tables 3 and 4 apply, except that –
- (i) the limitations as contained in Table 3 may not prevent a helicopter from conducting hover-in-ground-effect or hover-taxi operations within the confines of a controlled aerodrome or heliport, if the visibility is not less than 100 metre,
 - (ii) the minima specified in Table 3 are not applicable when a helicopter is entering or leaving a control zone and such flight has received clearance from an air traffic service unit to operate under Special VFR minima as contemplated in regulation 91.06.34; and
 - (iii) helicopters must be permitted to operate in less than 1 500 metre flight visibility outside of controlled airspace, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.

Table 3

Airspace	Flight visibility	Distance from clouds	Ground visibility and ceiling
Control zones	five kilometres	Horizontally: 300 metres Vertically: Clear of cloud	Except when operating under a SVFR clearance a helicopter may not take-off from, land at, or approach to land at an aerodrome or fly within the control zone when the ground visibility at the aerodrome concerned is less than 5 000 metres and the ceiling is less than 1 500 feet
Within an aerodrome traffic zone (which does not also comprise a control zone or part of a control zone)	five kilometres	Horizontally: 300 metres Vertically: Clear of cloud	A helicopter may not take-off from, land at, or approach to land at an aerodrome or fly within the aerodrome traffic zone when the ground visibility at the aerodrome concerned is less than 5 000 metres and the ceiling is less than 1 500 feet

Table 4
In Airspace other than those specified in Table 3

Airspace class	Altitude band	Flight visibility	Distance from cloud
C F G	At and above 10 000 feet above MSL	eight kilometres	1 500 metre horizontally 1 000 feet vertically
C F G	Below 10 000 ft AMSL and above 3 000 feet above MSL, or above 1 000 feet above terrain, whichever is the higher	five kilometres	1 500 metre horizontally 1 000 feet vertically
C	At and below 3 000 feet above MSL, or 1 000 feet above terrain, whichever is the higher	2 500 metres	1 500 metre horizontally 1 000 feet vertically
FG		1 500 metres unless in accordance with (iii) below	Clear of cloud and with the surface in sight

Provided that:

- (iv) the limitations as contained in Table 3 maynot prevent a helicopter from conducting hover-in-ground-effect or hover-taxi operations within the confines of a controlled aerodrome or heliport, if the visibility is not less than 100 m;
 - (v) the minima specified in Table 3 are not applicable when a helicopter is entering or leaving a CTR and such flight has received clearance from an ATSU to operate under Special VFR minima as provided for in Regulation 91.06.34; and
 - (vi) helicopters may be permitted to operate in less than 1 500 m flight visibility outside of controlled airspace, if manoeuvred at a speed that will give adequate opportunity to observe other traffic or any obstacles in time to avoid collision.
- (2) VFR flight is not permitted –
- (a) at transonic or supersonic speed; or
 - (b) in Class A airspace.

DIVISSION FOUR: VISUAL FLIGHT RULES

Visual flight rules

91.06.32 (1) VFR flights must be conducted such that the aircraft is flown in conditions of visibility and distance from clouds equal to or greater than those specified in Tables 1 to 4, except when operating as a special VFR flight.

(2) VFR flights may not, except when a special VFR clearance is obtained from an air traffic control unit, take off or land at an aerodrome within a control zone or enter the aerodrome traffic zone or aerodrome traffic circuit when the reported meteorological conditions at that aerodrome are below the following minima –

- (a) the ceiling is less than 1 500 feet; or
- (b) the ground visibility is less than 5 kilometres

- (3) VFR flights may not be operated –
 - (a) above flight level 200; or
 - (b) at transonic and supersonic speeds,

unless authorised by the appropriate ATS authority.

(4) Authorisation for VFR flights to operate above flight level 290 may not be granted in areas where a vertical separation minimum of 1 000 feet is applied above flight level 290.

- (5) A VFR flight may not be flown –
 - (a) over the congested areas of cities, towns or settlements or over an open-air assembly of persons at a height less than 1 000 feet above the highest obstacle within a radius of 600 metre from the aircraft; or
 - (b) elsewhere than as specified in subparagraph (a), at a height not less than 500 feet above the ground or water unless the flight can be made without hazard or nuisance to persons or property on the ground or water and the pilot-in-command operates at a height and in a manner that allows safe operation in the event of an engine failure,

except when necessary for take-off or landing, or except by permission from the appropriate authority.

- (6) An aircraft may not –
 - (a) be flown over congested areas or over an obvious open-air assembly of persons at a height less than 1 000 feet above the highest obstacle, within a radius of 2 000 feet from the aircraft;
 - (b) ,when flown elsewhere other than as contemplated in paragraph (a), be flown at a height less than 500 feet above the ground or water, unless if the flight can be made without hazard or nuisance to persons or property on the ground or water and the pilot-in-command operates at a height and in a manner that allows safe operation in the event of an engine failure; and
 - (c) circle over or do repeated overflights over an obvious open-air assembly of persons at a height less than 3 000 feet above the surface,

except when necessary for taking off, or landing, or except with prior written approval of the Executive Director.

(7) A helicopter may be permitted to be flown at heights less than those referred to subregulation (1)(a), provided that –

- (a) the operation is conducted without unnecessary nuisance or hazard to persons and property on the ground or water; and
- (b) the pilot-in-command operates at a height and in a manner that allows safe operation in the event of an engine failure.

(8) VFR flights in level cruising flight when operated above 3 000 feet from the ground or water or a higher datum as specified by the appropriate ATS authority, must be conducted at a flight level appropriate to the track as specified in the tables of cruising levels provided for in Document NAM-CATS-OPS 91, except where otherwise indicated in an air traffic control clearance or specified by the appropriate ATS authority.

- (9) VFR flights must comply with regulation 91.06.32–
- (a) when operating within Classes B, C and D airspace;
 - (b) when forming part of aerodrome traffic at controlled aerodromes; or
 - (c) when operated as special VFR flights.

(10) The pilot-in-command operating VFR flight within or into areas, or along routes, designated by the appropriate ATS authority must maintain continuous air-ground voice communication watch on the appropriate communication channel of, and report its position as necessary to, the air traffic services unit providing flight information service.

Changes from VFR flight to IFR flight

91.06.33 (1) The pilot-in-command of an aircraft who elects to change the conduct of flight of the aircraft from compliance with VFR to compliance with IFR must, if a flight plan was submitted for the flight, communicate the necessary changes to its current flight plan with the air traffic service unit concerned.

(2) The pilot-in-command must, if required under regulation 91.06.23 to submit flight plans, submit a flight plan to the appropriate air traffic service unit as soon as practicable and obtain a clearance prior to proceeding IFR when in a controlled airspace.

Special VFR weather minima

91.06.34 (1) A pilot-in-command of an aircraft may only conduct Special VFR operations in weather conditions below the conditions provided for in regulation 91.06.32 within a control zone –

- (a) under the terms of an air traffic control clearance;
- (b) by day only;
- (c) with a cloud ceiling of at least 600 feet and visibility of at least 1 500metre, measured from the aerodrome reference point;
- (d) if the Special VFR flight will not unduly delay an IFR flight;
- (e) if the aircraft is equipped with two-way radio equipment capable of communicating with an air traffic service unit on the appropriate frequency; and
- (f) if leaving the control zone, in accordance with instructions issued by an air traffic service unit prior to departure.

(2) A pilot-in-command of a helicopter may only conduct Special VFR operations in weather conditions below the conditions referred to in regulation 91.06.32 within a control zone –

- (a) under the terms of an air traffic control clearance;
- (b) by day only with a cloud ceiling of at least 300 feet and visibility of at least 800 metre offshore;
- (c) when clear of clouds;

- (d) if the helicopter will be operated at such a speed that its pilot has adequate opportunity to observe any obstructions or other traffic in sufficient time to avoid collisions;
- (e) if a flight can be conducted in accordance with the minimum height, provided for in regulation 91.06.37; and
- (f) if a Special VFR flight will not unduly delay an IFR flight.

VFR flight determination and weather deterioration

91.06.35 (1) The pilot-in-command of an aircraft operating outside a control zone or an aerodrome traffic zone is responsible to ascertain whether or not weather conditions permit flight in accordance with VFR.

(2) If weather conditions do not permit a pilot to maintain the minimum distance from cloud and the minimum visibility required by VFR the pilot must –

- (a) if in controlled airspace, request an amended clearance enabling the aircraft to continue in VMC to the nearest suitable aerodrome or to leave the airspace within which an ATC clearance is required;
- (b) if no clearance in accordance with paragraph (a) can be obtained, continue to operate in VMC and land at the nearest suitable aerodrome, notifying the appropriate ATC unit of the action taken;
- (c) if operating within a control zone, request authorisation to operate as a special VFR flight; or
- (d) request clearance to operate in accordance with the IFR.

DIVISION FIVE: INSTRUMENT FLIGHT RULES APPLICABLE TO ALL IFR FLIGHTS

Aircraft equipment

91.06.36 An aircraft operated with IFR must be equipped with suitable instruments and with navigation equipment appropriate to the route to be flown.

Minimum levels

91.06.37 (1) A pilot-in-command must, except when necessary for take-off or landing, or except when specifically authorised by the Executive Director, fly an IFR flight at a level which is not below the minimum flight altitude established by the state in whose territory it is overflown, or, if no such minimum flight altitude has been established –

- (a) over high terrain or in mountainous areas, at a level which is at least 2 000 feet above the highest obstacle located within eight kilometre of the estimated position of the aircraft;
- (b) elsewhere other than as specified in subparagraph (1), at a level which is at least 1 000 feet above the highest obstacle located within eight kilometer of the estimated position of the aircraft.

(2) A flight conducted above flight level 200 must be flown in compliance with IFR as provided for in this Subpart.

(3) Except when necessary for take-off or landing, or with the express permission of the Executive Director, an aircraft must at night, in instrument meteorological conditions or when operated in accordance with IFR, be flown –

- (a) at a height of at least 1 000 feet above the highest terrain or obstacle where the height of such terrain or obstacle does not exceed 5 000 feet above sea level within five nautical miles of the aircraft in flight; or
- (b) at a height of at least 2 000 feet above the highest terrain or obstacle located within five nautical miles of the aircraft in flight where the height of such terrain or obstacle exceeds 5 000 feet above sea level, but within areas determined by the Executive Director –
 - (i) the minimum height may be reduced to 1 000 feet above the highest terrain or obstacle located within five nautical miles of the aircraft in flight; and
 - (ii) the aircraft is flown in accordance with such procedures as the Executive Director may determine.

Change from IFR flight to VFR flight

91.06.38 (1) The pilot-in-command of an aircraft who elects to change the conduct of flight of the aircraft from compliance with IFR to compliance with VFR must, if a flight plan was submitted for the flight, notify the air traffic service unit concerned that the IFR flight is cancelled and communicate to such air traffic service unit the intended changes to be made to the current flight plan.

(2) If an aircraft operating under IFR is flown in or encounters VMC, the pilot-in-command may not cancel its IFR flight unless it is anticipated, and intended, that the flight will be continued for a reasonable period of time in uninterrupted visual meteorological conditions.

Rules applicable to IFR flights within controlled airspace

91.06.39 (1) IFR flights must comply with the provisions of regulation 91.06.28 when operated in controlled airspace.

(2) An IFR flight operating in cruising flight in a controlled airspace must be flown at a cruising level, or, if authorised by ATS unit to employ cruise climb techniques, between two levels or above a level, selected from –

- (a) the table of cruising levels provided for in Document NAM-CATS-OPS 91, or
- (b) a modified table of cruising levels, provided for in Document NAM-CATS-OPS 91 for flights above flight level 410,

except that the correlation of levels to track may not apply, except if otherwise indicated in an air traffic control clearances or specified by the appropriate ATS authority in aeronautical information publications.

Rules applicable to IFR flights outside controlled airspace

91.06.40 (1) An IFR flight operating in level cruising flight outside of controlled airspace must be flown at a cruising level appropriate to its track as specified in –

- (a) the table of cruising levels in Document NAM-CATS-OPS 91, except when otherwise specified for a flight at or below 3 000 feet above mean sea level by the appropriate ATS authority; or
- (b) a modified table of cruising levels for flights above flight level 410, provided for in Document NAM-CATS-OPS 91.

(2) An IFR flight operating outside controlled airspace but within or into areas, or along routes, designated by the ATS authority must maintain an air-ground voice communication watch on the appropriate communication channel and establish two-way communication, as necessary, with the air traffic services unit providing flight information service.

(3) An IFR flight operating outside controlled airspace and required by the appropriate ATS authority to maintain an air-ground voice communication watch on the appropriate communication channel and establish two-way communication, as necessary, with the air traffic services unit providing flight information service, must report position, as specified in this Part for controlled flights.

DIVISION SIX: AIRCRAFT ENGAGED UN OPERATIONS OTHER THAN SCHEDULED COMMERCIAL AIR TRANSPORT OPERATIONS

Foreign military aircraft

91.06.41 A foreign military aircraft may not, on the express invitation or express permission of the Ministry responsible for International Relations and Cooperations, fly over or land in ,but such aircraft flying over or landing in Namibia is exempt from these regulations to such extent and on such conditions as are specified in the invitation or permission.

Identification and interception of aircraft

91.06.42 (1) A person may not institute in-flight surveillance against, give an interception signal in connection with, or give an instruction to land to, a civilian aircraft suspected to be in contravention of the Act except –

- (a) on instruction by the Minister, the Executive Director, an authorised officer or authorised person; or
- (b) if the person is a member of the Namibian Police Services or Namibian National Defence Force, acting within the course and scope of his or her duties; and
- (c) the in-flight surveillance, interception signal or instruction to land is in the public interest.

(2) The in-flight surveillance, interception signal or instruction to land must be executed in a manner that does not unduly affect aviation safety.

(3) The intercepted aircraft must follow out the instructions of the intercepting aircraft as provided for in Document NAM-CATS-OPS 91.

(4) If an aircraft is intercepted, the pilot-in command must immediately establish radio contact with the intercepting aircraft on 121,5 MHz.

(5) If the intercepting aircraft cannot establish radio contact with or in any other practical way contact the intercepted aircraft, visual signals as provided for in Document NAM-CATS-OPS 91 must be used.

(6) The pilot-in-command of an aircraft flying in Namibian airspace must if intercepted comply with the procedures specified in this regulation.

(7) The pilot-in-command of an aircraft flying in foreign airspace must if intercepted comply with the interception procedures of that state.

DIVISION SEVEN: AIR TRAFFIC RULES

ATS procedures

91.06.43 The pilot-in-command of an aircraft to be operated in a controlled airspace must –

- (a) ensure that an ATS flight plan is submitted and changes to such flight ATS plan are notified as contemplated in regulation 91.06.23;
- (b) ensure that radio contact is established with the responsible air traffic service unit, and that radio communication is maintained as provided for in regulation 91.06.28 except where such communication is accomplished using air data link; and
- (c) for flight in controlled airspace, obtain and comply with air traffic control clearances and instructions, except that –
 - (i) the pilot-in-command of the aircraft may deviate from an air traffic control clearance in exceptional circumstances, on condition that such deviation must be reported to the responsible air traffic service unit as soon as possible; and
 - (ii) the pilot-in-command of an aircraft may propose an amendment to an air traffic control clearance, but such amendment may not be applied until acceded to by the responsible air traffic service unit .

Priority

91.06.44 (1) An air traffic service unit may, with regard to arrivals and departures, give priority to aircraft operating in accordance with ATS flight plan clearance over aircraft not so engaged.

(2) An air traffic service unit must give priority to certain flights regardless of whether such flight is operating on an ATS flight plan or not, if the pilot-in-command of the aircraft has notified the air traffic service unit that –

- (a) the aircraft is in a state of emergency, or the pilot-in-command has declared a distress or MAYDAY situation;
- (b) the pilot-in-command has declared an urgency or terms used to express extreme urgency situation;
- (c) the pilot-in-command has stated that there is a critically ill person on board the aircraft or the flight is operated as an emergency air ambulance flight and the type of flight has been annotated accordingly in the flight plan; or
- (d) the pilot-in-command has declared that the aircraft is in a state of minimum fuel.

(3) An air traffic service unit must, with regard to flight operations provided that there is no priority in force in terms of subregulation (2), give priority to an aircraft –

- (a) engaged in the transportation of the President or Deputy President;
- (b) engaged in the transportation of any visiting Head of State or foreign government official recognised by the Ministry responsible for International Relations and Cooperations as qualifying for priority services; or
- (c) engaged in operations related to national security, humanitarian emergencies, public safety emergencies or any other operation that the Executive Director authorises as qualifying for priority services.

(4) An aerodrome operator must, with regard to arrivals, departures and passenger movements, provided that there is no priority in force in terms of subregulation (2), give priority to aircraft –

- (a) engaged in the transportation of the President or Deputy President;
- (b) engaged in the transportation of any visiting heads state or foreign government official recognised by the Ministry responsible for International Relations and Cooperations as qualifying for priority services; or
- (c) engaged in operations related to national security, humanitarian emergencies, public safety emergencies or any other operation that the Executive Director authorises as qualifying for priority services.

(5) If an aircraft has requested a clearance involving priority in terms of subregulation (2), (3) or (4), a report explaining the necessity for such priority must be submitted by the pilot-in command if requested by the Executive Director, the appropriate air traffic service unit or the appropriate airfield operator.

SUBPART 7 FLIGHT OPERATIONS

Routes and areas of operation

91.07.1 The owner or operator of an aircraft must ensure that –

- (a) operations are only conducted along such routes or within such areas, for which approval or authorisation has been obtained, where required, from the appropriate authority concerned;
- (b) all flights are planned and conducted in accordance with any mandatory routings that have been published for any airspace being operated in, unless otherwise authorised in an air traffic control clearance;
- (c) the performance of the aircraft intended to be used, is adequate to comply with minimum flight altitude requirements; and
- (d) the instruments and equipment of the aircraft intended to be used, comply with the minimum requirements for the planned operation and will enable the flight crew to control the flight path of the aircraft, carry out any required procedural manoeuvres and observe the operating limitations of the aircraft in the expected operating conditions.

Minimum flight altitudes

- 91.07.2** (1) A pilot may not operate an aircraft at altitudes below –
- (a) altitudes, established by the owner or operator, which provide the required terrain clearance, taking into account the performance operating limitations referred to in Subpart 8; and
 - (b) the minimum heights referred to in Subpart 6,

except when necessary for take-off and landing.

(2) The method of establishing minimum flight altitudes referred to in subregulation (1) (a) is provided for in Document NAM-CATS-OPS 91.

(3) If the minimum flight altitudes established by the appropriate authority of a foreign state are higher than the minimum flight altitudes provided for in this regulation, the minimum flight altitudes established by such appropriate authority applies in respect of a Namibian registered aircraft flying in the airspace of the foreign state concerned.

Use of aerodromes

91.07.3 (1) A person may not select or authorise a selection of an aerodrome for use as a destination or destination alternate aerodrome, except if such aerodrome is determined to be adequate for the type of aircraft and operation concerned.

(2) An aircraft may not take-off or land by night, unless a place of take-off or landing is equipped with night flying facilities or in an emergency.

Helicopter landings and take-offs

91.07.4 (1) A pilot-in-command of a helicopter may not land at or take-off from any place unless the place is so situated to permit the helicopter, in the event of an engine failure arising during such landing or take-off, to continue to operate in a manner that allows safe operation of such helicopter without undue hazard to persons or property on the surface.

(2) The pilot-in-command of a helicopter must ensure that any place used for landing, take-off or hover –

- (a) has –
 - (i) physical characteristics; and
 - (ii) obstacle limitation surfaces, commensurate with the ambient light conditions and the characteristics of the helicopter being operated;
- (b) allows the helicopter to operate clear of obstacles and without causing nuisance to third parties through its rotor wash;
- (c) has a surface area suitable for touch-down and lift-off; and
- (d) meets the requirements contemplated in regulation 91.08.2.

(3) A pilot of a helicopter may not land on, or take-off from, any elevated helicopter landing place, unless such place is considered suitable by the pilot-in-command.

(4) A pilot of a helicopter may not land on, or take-off from, any elevated helicopter landing place situated within a built-up area, unless the helicopter landing place has been licenced or approved in terms of Part 139.

(5) A pilot-in-command of a helicopter may not land or take-off from any place within a built-up area unless he or she has assured him or herself that local regulations do not prohibit such take-off or landing without specific permission by the local authority, provided that this restriction may not apply to a helicopter engaged in an emergency medical service operation or undertaking a flight necessary for exercising any power in terms of any law.

(6) The Executive Director may, in the interests of aviation safety –

- (a) impose conditions or institute restrictions as to the use of any building, structure or place for the landing or take-off of helicopters;
- (b) require special flight procedures to be adopted at, or special routes to be followed to or from, building, structure or place referred to in paragraph (a) by helicopters; and
- (c) despite subparagraph (a) and (b), impose different conditions, institute different restrictions, or require different special flight procedures to be adopted in respect of different buildings, structures, or places.

(7) Nothing in this regulation is construed as conferring any right to land at any building, structure or place against the wishes of the owner of, or any other person who has an interest in, the building, structure or place or as prejudicing the rights or remedies of any person in respect of any injury to persons or property caused by the helicopter or its occupants.

Aerodrome operating minima

91.07.5 (1) A pilot of an aircraft may not use an aerodrome as a destination or alternate aerodrome, unless the operating minima for such aerodrome, established by the appropriate authority of the state in which the aerodrome is situated, can be complied with.

(2) The aerodrome operating minima for a specific type of approach and landing procedure is applicable if –

- (a) the ground equipment shown on the respective instrument approach and landing chart required for the intended procedure is operative;
- (b) the aircraft systems required for the type of approach are operative;
- (c) the equipment meets the appropriate airworthiness certification requirements; and
- (d) such owner or pilot-in-command of an aircraft has an approval to use the aerodrome operations minima for a specific type approach and landing procedure.

(3) In determining or establishing the aerodrome operating minima applicable to any particular operation, the owner or operator of an aircraft must take into account –

- (a) the type, performance and handling characteristics of the aircraft;
- (b) the composition of the flight crew, their competence and experience;
- (c) the surface condition, dimensions and characteristics of the runways or touch-down areas which may be selected for use;

- (d) the adequacy and performance of the available visual and non-visual ground aids;
- (e) the equipment available in the aircraft for the purpose of navigation or control of the flight path, as appropriate, during the take-off, approach, flare, landing or missed approach;
- (f) the obstacles in the approach and missed approach areas and the climb-out areas and necessary clearance;
- (g) the obstacle clearance altitude or height for the instrument approach procedures;
- (h) the means to determine and report meteorological conditions; and
- (i) the availability and adequacy of emergency services.

(4) A pilot may not conduct operations in weather conditions lower than the aerodrome operating minima provided for in Document NAM-CATS-OPS 91, unless approved by the Executive Director to do so.

(5) The Executive Director may authorise operational credits for operations with advanced aircraft.

(6) The Executive Director may, if the operational credit referred to in subregulation (5) relates to low visibility operations, issue a specific approval and such authorisations may not affect the classification of the instrument approach procedure.

(7) The Executive Director must when issuing a specific approval for the operational credit ensure that the –

- (a) aircraft meets the appropriate airworthiness certification requirements;
- (b) information necessary to support effective crew tasks for the operation is appropriately available to both pilots, if the number of flight crew members specified in the operations manual (or other documents associated with the certificate of airworthiness) is more than one;
- (c) owner or operator of the aircraft has carried out a safety risk assessment of the operations supported by the equipment;
- (d) owner or operator of the aircraft has established and documented normal and abnormal procedures and MEL;
- (e) owner or operator of the aircraft has established a training programme for the flight crew members and relevant personnel involved in the flight preparation;
- (f) owner or operator of the aircraft has established a system for data collection, evaluation and trend monitoring for low visibility operations for which there is an operational credit; and
- (g) owner or operator of the aircraft has instituted appropriate procedures with respect to continuing airworthiness, maintenance and repair practices and programmes.

(8) The State of Registry must establish criteria for the safe operation of the aircraft for operations with operational credit with minima above those related to low visibility operations.

(9) The Executive Director must establish criteria for the safe operation of the aircraft for operations with operational credit with minima above those related to low visibility operations.

(10) Instrument approach operations must be classified based on the designed lowest operating minima below which an approach operation must only be continued with the required visual reference as follows –

- (a) type A: a minimum descent height or decision height at or above 75 metre (250 feet); and
- (b) type B: a decision height below 75 metres (250 feet) and Type B instrument approach operations are categorized as:
 - (i) Category I (CAT I): a decision height not lower than 60 metres (200 feet) and with either a visibility not less than 800 metres or a runway visual range not less than 550 metre;
 - (ii) Category II (CAT II): a decision height lower than 60 metre (200 feet) but not lower than 30 metres (100 feet) and a runway visual range not less than 300 metres;
 - (iii) Category III (CAT III): a decision height lower than 30 metre (100 feet) or no decision height and a runway visual range less than 300 metres or no runway visual range limitations.

(11) The operating minima for 2D instrument approach operations using instrument approach procedures must be determined by establishing a minimum descent altitude or minimum descent height, minimum visibility and, if necessary, cloud conditions.

(12) The operating minima for 3D instrument approach operations using instrument approach procedures must be determined by establishing a decision altitude or decision height and the minimum visibility or runway visual range.

(13) The Executive Director must issue a specific approval for instrument approach operations in low visibility which must only be conducted if runway visual range information is provided.

(14) The Executive Director may, for take-off in low visibility, issue a specific approval for the minimum take-off runway visual range.

Threshold crossing height

91.07.6 The pilot-in-command of an aircraft being used to conduct an instrument approach, must ensure that the aircraft crosses the threshold by a safe margin and in the required landing configuration and altitude.

Pre-flight selection of aerodromes

91.07.7 (1) The owner or operator of an aircraft must select the destination or alternate aerodromes contemplated in regulation 91.07.5 when planning a flight.

(2) The owner or operator must select a departure, destination or alternate aerodrome only when the service ability status of the aerodrome permits safe operation of the type of aircraft concerned.

(3) A take-off alternate aerodrome must be selected and specified in the operational and ATS flight plan, as contemplated in 91.06.23, if the meteorological conditions at the aerodrome of departure are at or below the applicable aerodrome operating minima or it would not be possible to return to the aerodrome of departure for other reasons.

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

- (a) 45 minutes flying time from the departure aerodrome in the case of single-engine aeroplanes;
- (b) for aircraft with two engines, one hour of flight time at a one-engine-inoperative cruising speed, determined from the aircraft flight manual referred to in regulation 91.03.2, calculated in International Standard Atmosphere and still-air conditions using the actual take-off mass;
- (c) for aeroplanes with three or more engines, two hours of flight time at an all-engine cruising speed, determined from the aircraft flight manual, calculated in international standards atmosphere and still-air conditions using the actual take-off mass;
- (d) for aeroplanes engaged in extended diversion time operations where an alternate aerodrome meeting the distance criteria of subregulation (4) (b) or (c) is not available, the first available alternate aerodrome located within the distance of the operator's approved maximum diversion time considering the actual take-off mass;
- (e) for an aerodrome to be selected as a take-off alternate the available information must indicate that, at the estimated time of use, the conditions will be at or above the operator's established aerodrome operating minima for that operation; and
- (f) en-route alternate aerodromes, required by paragraph (d) for extended diversion time operations by aircraft with two turbine engines, must be selected and specified in the air traffic services flight plan,

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

(5) The owner or operator of a helicopter must select at least one destination alternate aerodrome for each IFR flight, unless the meteorological conditions prevailing are such that, for the period from one hour before and until one hour after the expected time of arrival at the destination aerodrome, the approach from the minimum sector safe altitude and landing can be made in VMC.

(6) The owner or operator of an aircraft must for a flight to be conducted in accordance with IFR, select at least one destination alternate aerodrome which must be specified in the ATS flight plan, unless –

- (a) the duration of the flight from the departure aerodrome or from the point of in-flight re-planning to the destination aerodrome is such that, taking into account all meteorological conditions and operational information relevant to the flight, at the estimated time of use, a reasonable certainty exists that –
 - (i) the approach and landing may be made under visual meteorological conditions; and

- (ii) separate runways are usable at the estimated time of use of the destination aerodrome with at least one runway having an operational instrument approach procedure;
- (b) the aerodrome is isolated and operations into isolated aerodromes do not require the selection of a destination alternate aerodromes, planned as contemplated in Document NAM-CATS-OPS 91 and –
 - (i) for each flight into an isolated aerodrome a point of no return must be determined; and
 - (ii) a flight to be conducted to an isolated aerodrome may not be continued past the point of no return unless a current assessment of meteorological conditions, traffic and other operational conditions indicate that a safe landing can be made at the estimated time of use.
- (7) Except as provided in subregulations (10) and (13), the owner or operator of an aircraft must when planning a flight, only select an aerodrome as a destination or alternate aerodrome if the appropriate weather reports or forecasts or a combination of such weather report or forecast, are at or above the applicable planning minima for a period of one hour before to one hour after the estimated time of arrival of the aircraft at the aerodrome.
- (8) The owner or operator of a helicopter must select at least one destination alternate aerodrome for each IFR flight unless –
 - (a) available current meteorological information indicates that the following meteorological conditions will exist from two hours before to two hours after the estimated time of arrival or from the actual time of departure to two hours after the estimated time of arrival, whichever is the shorter period –
 - (i) a cloud base of at least 400 feet above the minimum associated with the instrument approach procedure; and
 - (ii) visibility of at least 1.5 kilometre more than the minimum associated with the procedure; or
 - (b) the heliport of intended landing is isolated, and no suitable alternate heliport is available and –
 - (i) an instrument approach procedure is provided for the isolated heliport of intended landing; and
 - (ii) a point of no return is determined in case of an offshore destination.
- (9) Suitable offshore alternates for helicopters may be specified subject to the following –
 - (a) the offshore alternates must be used only after passing a point of no return or prior to a point of no return, onshore alternates must be used;
 - (b) mechanical reliability of critical control systems and critical components is considered and taken into account when determining the suitability of the alternate;
 - (c) one-engine inoperative performance capability must be attainable prior to arrival at the offshore alternate;

- (d) to the extent possible, deck availability must be guaranteed; and
 - (e) weather information must be reliable and accurate.
- (10) An owner or operator of an aircraft must for two destination alternate aerodromes select and specify in the operational and ATS flight plans, if at the destination aerodrome –
- (a) meteorological conditions at the estimated time of use will be below the operator's established aerodrome operating minima for that operator; or
 - (b) meteorological information is not available.
- (11) The owner or operator of an aircraft must, in the ATS flight plan referred to in regulation 91.06.23, specify the destination alternate aerodrome if required.
- (12) The owner or operator of an aircraft must, in the ATS flight plan referred to in regulation 91.06.23, specify enroute alternate aerodromes for extended-range operations with a twin-engine aeroplanes.
- (13) In addition to subregulation (10) an owner or operator of an aircraft may conduct a flight in accordance with IFR to a destination for which there is no aviation weather report or forecast available, as long as the requirements specified in Document NAM-CATS-OPS 91 are met.
- (14) Despite subregulations(3), (6) and (8) the Executive Director may, based on the results of a specific safety risk assessment conducted by the owner or operator of an aircraft which demonstrates how an equivalent level of safety will be maintained approve operational variations to alternate aerodrome selection criteria.
- (15) The specific safety risk assessment referred to in subregulation (14) must include at least the –
- (a) capabilities of the pilot-in-command or operator;
 - (b) overall capability of the aircraft and its systems;
 - (c) available aerodrome technologies, capabilities and infrastructure;
 - (d) quality and reliability of meteorological information;
 - (e) identified hazards and safety risks associated with each alternate aerodrome variation; and
 - (f) specific mitigation measures.

Planning minima for IFR flights

91.07.8 (1) The owner or operator of an aircraft may not select an aerodrome as a take-off alternate aerodrome for a flight to be conducted, wholly or partly in accordance with IFR under instrument meteorological conditions unless the appropriate weather reports or forecasts or any combination of such weather or forecast, indicate that, during a period commencing one hour before and ending one hour after the estimated time of arrival at the aerodrome, the weather conditions will be at or above the applicable landing minima provided for in regulation 91.07.5.

(2) The ceiling of the aircraft must be taken into account when the only approaches available are non-precision or circling approaches.

(3) Any limitation related to one-engine inoperative operations must be taken into account.

(4) Except as provided for in regulation 91.07.7(13), the owner or operator of an aircraft may only select the destination aerodrome or destination alternate aerodrome, if required, if the appropriate weather reports or forecasts or any combination of such weather reports or forecast, indicate that, during a period commencing one hour before and ending one hour after the estimated time of arrival at the aerodrome, the weather conditions will be at, or above, the applicable planning minima.

(5) The applicable planning minima referred to in subregulation (4) must be as follows –

(a) planning minima for a destination aerodrome –

(i) runway visual range or visibility specified in regulation 91.07.5; and

(ii) for non-precision approach or a circling approach, the ceiling at, or above, minimum descent altitude or minimum descent height; and

(b) planning minima for a destination alternate aerodrome must be as provided for in Document NAM-CATS-OPS 91.

(6) The owner or operator of an aircraft may not select an aerodrome as an en route alternate aerodrome unless the appropriate weather reports or forecasts or any combination of such weather reports or forecast, indicate that during a period commencing one hour before and ending one hour after the estimated time of arrival at the aerodrome, the weather conditions will be at or above the planning minima as provided for in Document NAM-CATS-OPS 91.

Meteorological conditions

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

(2) A pilot conducting a flight in accordance with IFR –

(a) may not take off from the departure aerodrome unless meteorological conditions, at the time of use, are at or above the operator's established aerodrome operating minima for that operator; and

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

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

VFR operating minima

- 91.07.10** The owner or operator of an aircraft must ensure that –
- (a) VFR flights are conducted in accordance with the VFR provided for in Subpart 6; and
 - (b) special VFR flights are not commenced when the visibility is less than the visibility provided for in regulation 91.06.32(1).

Mass and balance

91.07.11 (1) The owner or operator of an aircraft must ensure that, during any phase of the operation, the loading, mass and the centre of gravity of the aircraft complies with the limitations specified in the approved aircraft flight manual referred to in regulation 91.03.2 or the operations manual referred to in regulation 91.03.7 if the limitations in such manual are more restrictive.

(2) The owner or operator of an aircraft must establish the mass and the centre of gravity of the aircraft by actual weighing prior to initial entry into operation and thereafter at intervals of five years.

(3) The accumulated effects of modifications and repairs on the mass and balance of the aircraft, must be accounted for and properly documented by the owner or operator of the aircraft.

(4) The aircraft must be weighed in accordance with the provisions of subregulation (2), if the effect of modifications on the mass and balance is not accurately known.

(5) The owner or operator of an aircraft must determine the mass of all operating items and flight crew members included in the dry operating mass of the aircraft, by weighing or by using the appropriate standard mass as provided for in Document NAM-CATS-OPS 91.

(6) The owner or operator of an aircraft must determine the influence of the mass of the operating items and flight crew members referred to in subregulation (5) on the centre of gravity of the aircraft.

(7) The owner or operator of an aircraft must establish the mass of the traffic load, including any ballast, by actual weighing or determine the mass of the traffic load in accordance with the appropriate standard passenger and baggage mass as provided for in Document NAM-CATS-OPS 91.

(8) The owner or operator of an aircraft must determine the mass of the fuel load by using the actual specific gravity or, if approved by the Executive Director, a standard specific gravity.

Fuel and oil requirements

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

(2) The pilot-in-command must advise ATC of a minimum fuel state by declaring minimum fuel when, having committed to land at a specific aerodrome, the pilot calculates that any change to the existing clearance to that aerodrome or other air traffic delays, may result in landing with less than the planned final reserve fuel.

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

(4) The fuel policy, including calculation of the amount of fuel and oil to be carried by an aircraft must be as provided for in NAM-CATS-OPS 91.

Refuelling or defueling with passengers on board

91.07.13 (1) The owner or operator of an aircraft must ensure that the aircraft is not refuelled or defueled with aviation gasoline or wide-cut type fuel when passengers are embarking, on board or disembarking such aircraft.

(2) In cases other than the cases referred to in subregulation (1), necessary precautions must be taken and the aircraft must be properly manned by qualified personnel ready to initiate and direct an evacuation of such aircraft by the most practical and expeditious means available.

Smoking in aircraft

91.07.14 (1) A person may not smoke in a Namibian registered aircraft or in any foreign registered aircraft when flying in or over Namibia.

(2) In all Namibian registered aircraft, notices must be displayed in a prominent place in the aircraft indicating that smoking is prohibited and that such notices are clearly visible to all passengers and flight crew members.

Instrument approach and departure procedures

91.07.15 (1) The owner or operator of an aircraft must ensure that the instrument approach and departure procedures, established by the appropriate authority of the state in which the aerodrome to be used, is located, are used.

(2) Despite subregulation (1), a pilot-in-command may accept an air traffic control clearance to deviate from a published approach or departure route, as long as –

- (a) obstacle clearance criteria are observed, and full account is taken of the operating conditions; and
- (b) the final approach is flown visually.

(3) The owner or operator of an aircraft must ensure that the appropriate temperature corrections to all published altitudes are applied when conducting approaches at an aerodrome in temperatures below standard.

(4) One or more instrument approach procedures designed to support instrument approach operations must be approved and promulgated by the state in which the aerodrome is located to serve each instrument runway or aerodrome utilised for instrument flight operations.

(5) An aircraft operated in accordance with the instrument flight rules must comply with the instrument approach procedures approved by the state in which the aerodrome is located.

Noise abatement and noise certification

91.07.16 (1) The pilot-in-command must take into account published noise abatement procedures to minimise the effect of aircraft noise while ensuring that safety has priority over noise abatement.

(2) The pilot-in-command, owner or operator of an aircraft must insure that such aircraft is carrying a document attesting noise certification where applicable.

Submission of ATS flight plan

91.07.17 The owner or operator of an aircraft must ensure that a flight is not commenced unless an ATS flight plan has been filed or adequate information has been deposited in order to permit alerting services to be activated, if required.

Seats, safety belts and harness

91.07.18 (1) The pilot-in-command must, before take-off and landing, and whenever considered necessary in the interests of aviation safety, ensure that each person on board such aircraft occupies a seat or berth with his or her safety belt or harness, where provided, properly secured except as provided for in regulation 91.04.11.

(2) Despite subregulation (1), a person may use the floor of the aircraft as a seat, if that person is on board for the purpose of parachuting.

(3) Despite subregulation (2) a person may operate an aircraft without a seat belt for a person, if that person is on board for the purpose of parachuting and has an alternative means of securing that person during take-off and landing.

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

(5) If a pilot-in-command cannot see all the passenger seats in an aircraft from his or her own seat, a means of indicating to all passengers and cabin crew members that seat belts should be fastened, must be installed.

(6) A safety harness and safety belt must have a single point release.

(7) A passenger may not be allowed to be responsible for the safety of more than one infant on board an aircraft.

Passenger seating

91.07.19 (1) The owner or operator of an aircraft must ensure that passengers are seated where, if an emergency evacuation is required, such passengers may best assist and not hinder evacuation from the aircraft.

(2) The owner or operator of an aircraft must ensure that if a disabled passenger is carried together with other passengers, such passenger may not be positioned in such a way that access to emergency exits is blocked.

(3) Passengers may be carried in an aircraft, other than an air ambulance aircraft operated and equipped in terms of regulations relating to aircraft engaged in air ambulance operations, on

a stretcher only if such stretcher and the manner in which it is secured to the aircraft have been approved by the Executive Director and the condition of the passenger does not require the attention of an aviation health care provider or require the passenger to be connected to any external medical equipment.

(4) In the case of an emergency medical situation, where no air ambulance aircraft operated and equipped in terms of regulations relating to aircraft engaged in air ambulance operations can be made available within a reasonable time span at or near the place where the situation exists, an aircraft owner or operator may disregard subregulation (1), (2) and (3) in the interest of saving human life.

(5) If an owner or operator uses an aircraft as a non-standard emergency transport in terms of subregulation (4), such operator must, within 14 days of the flight having taken place report such an incidence to the Executive Director on the appropriate form as provided for by the Executive Director, explaining the reasons for the deviation from this regulation.

(6) The pilot-in-command must ensure that multiple occupancy of aircraft seats does not occur other than by one adult and one infant who is properly secured by a child restraint device.

Passenger movements and briefing

91.07.20 (1) The owner or operator of an aircraft must take reasonable steps to provide for the safe movement of his or her passengers to or from the aircraft while on the aerodrome movement area.

- (2) The owner or operator of an aircraft must ensure that –
- (a) passengers are verbally briefed about safety matters, parts or all of which may be given by an audio-visual presentation; and
 - (b) in an emergency during flight, passengers are instructed in such emergency action as may be appropriate to the circumstances.

Passenger health and safety

91.07.21 (1) The pilot-in-command of an aircraft must notify air traffic control if it appears that a person displays the signs and symptoms of a communicable disease as provided for in Document NAM-CATS-OPS 91.

- (2) The owner or operator of an aircraft must establish procedures for –
- (a) evaluation by flight crew member or cabin crew member of a person who displays the signs and symptoms referred to in subregulation (1); and
 - (b) the notification of the air traffic control by the pilot-in-command of a suspected case as provided for in Document NAM-CATS-OPS 91.

Emergency equipment

91.07.22 (1) The owner or operator of an aircraft must ensure that emergency equipment, carried or installed in the aircraft to meet the requirements provided for in this Part and the MEL, is in such condition that it will satisfactorily perform its design function.

(2) The pilot-in-command of the aircraft must ensure that the emergency equipment referred to in subregulation (1) remains easily accessible for immediate use by the flight crew.

Illumination of emergency exits

91.07.23 If an aircraft, which is equipped with an emergency lighting system is in flight and below 1 000 feet above ground level or on the ground with passengers on board –

- (a) the emergency lighting system must be switched on; or
- (b) the normal cabin lighting system must be switched on and the emergency lighting must be armed.

Use of supplemental oxygen

91.07.24 (1) The pilot-in-command of an aircraft must ensure that flight crew members engaged in performing duties essential to the safe operation of an aircraft in flight, use supplemental oxygen –

- (a) continuously when the flight deck pressure altitude exceeds 10 000 feet for longer than 120 consecutive minutes flight time; and
- (b) at all times when the flight deck pressure altitude exceeds 12 000 feet.

Approach and landing conditions

91.07.25 (1) A pilot-in-command of an aircraft must before commencing an approach to land, be satisfied that, according to the information available, the weather and the condition of the touch-down and runway area at an aerodrome intended to be used, a safe approach, landing or missed approach can be executed having regard to the performance information specified in the aircraft flight manual or similar document of the aircraft.

(2) An approach to land may not be continued below 1 000 feet above aerodrome elevation, unless a pilot-in-command, based on the information available, is satisfied that –

- (a) a runway surface condition permits a safe landing; and
- (b) an aircraft performance information indicates that a safe landing can be made.

Approach ban

91.07.26 (1) An approach to land may not be continued below 300 metre (1 000 feet) above aerodrome elevation unless the pilot-in-command is satisfied that, with the runway surface condition information available, the aircraft performance information indicates that a safe landing can be made.

(2) If, after passing 1000 feet above an aerodrome elevation in accordance with subregulation (1), a reported runway visual range or visibility falls below the applicable minimum, a pilot may continue with an approach to decision altitude or decision height or minimum descent altitude or minimum descent height.

(3) A pilot may continue with an approach below altitude or decision height or minimum descent altitude or minimum descent height and complete a landing, provided that the required visual reference is established at an altitude or decision height or minimum descent altitude or minimum descent height is maintained.

In-flight testing on passenger- and cargo-carrying flights

91.07.27 The owner or operator of an aircraft, when passengers or cargo are on board such aircraft, must ensure that a person does not –

- (a) simulate emergency situations in the aircraft affecting the flight characteristics of such aircraft;
- (b) conduct flight testing for the initial skills test or renewal of an instrument rating;
- (c) conduct any flight or skills test other than a route proficiency test; or
- (d) conduct any skills test for a class or type rating.

Turning helicopter rotors

91.07.28 (1) A person engaged in helicopter operations may not, except as provided for in subregulation (2), permit helicopter rotors to be turned under power without a qualified pilot at the controls of such helicopter.

(2) A licensed AME, who has undergone instruction from a qualified Grade II or higher qualified helicopter flight instructor on the ground-running of the relevant helicopter type, and thereafter has been certified as competent to undertake such a task by the instructor in AME's record of experience, may turn helicopter rotors under power for the purposes of blade tracking on condition that –

- (a) the collective has been locked in the down position; and
- (b) ground-runs are carried out when the helicopter is stationary, and wind conditions do not require major cyclic inputs.

Starting and running of engines

91.07.29 (1) Except where the brakes are serviceable and are fully applied, chocks must be placed in front of the wheels of an aircraft before starting the engine or engines, and a competent person must be seated at the controls when the engine or engines are running.

(2) If the pilot of an aircraft is the only person present and it becomes necessary for chocks to be used, he or she must ensure that the chocks are removed prior to starting the engine, unless if the aircraft is equipped with a parking brake, in which case the parking brake must be set before the pilot removes the chocks.

(3) Except as contemplated in subregulation (2), when the engines are running, at least one pilot seat of an aircraft must be attended by a person qualified to occupy the pilot seat.

Acrobatic flights

91.07.30 (1) A aircraft may not be flown acrobatically, so as to avoid endangering air traffic.

(2) An aircraft may not be flown acrobatically, unless if individual permission has been obtained from the Executive Director, on condition that –

- (a) the manoeuvre can be concluded, and the aircraft brought on an even keel at a height of not less than 2 000 feet above the ground or water;

- (b) the aircraft is flown acrobatically within a five nautical mile distance of an aerodrome reference point of an aerodrome licensed and approved in terms of Part 139 unless the aircraft is flown at a height not less than 4 000 feet above ground level;
- (c) the aircraft is not flown in the vicinity of air traffic services routes; and
- (d) the aircraft is not flown over any populous area or public gathering.

Aerodrome approach and departure procedures

91.07.31 (1) When an instrument approach to, or instrument departure from, an aerodrome is necessary, the pilot-in-command of an aircraft must use the instrument approach and departure procedure as published by the Executive Director in the AIC, IAIP, IAIP Supplement or NOTAM or otherwise approved by the Executive Director.

(2) A person flying an aircraft may not execute or endeavour to execute an instrument approach or instrument departure at an aerodrome unless –

- (a) the provisions of regulation 91.06.33 are complied with;
- (b) the flight is conducted in accordance with procedures for instrument approach or instrument departure authorised by the Executive Director for the specific aerodrome and manoeuvre to be executed;
- (c) the requirements for flights conducted under instrument meteorological conditions authorised by the Executive Director are complied with; and
- (d) where applicable, has received a clearance for the approach from the relevant air traffic services unit.

(3) A pilot-in-command of an aircraft under IFR may not nominate an aerodrome as an alternate aerodrome unless –

- (a) there is a procedure for an instrument approach authorised by the Executive Director, if the forecast for the alternate aerodrome is instrument meteorological conditions;
- (b) the aircraft complies with the requirements of regulation 91.06.33; and
- (c) there is reasonable certainty that the requirements for flights conducted under instrument meteorological conditions will be complied with.

Aircraft operating procedures

91.07.32 The pilot-in-command of an aircraft must climb or descend to an assigned altitude or flight level at a rate less than 1 500 feet per minute throughout the last 1 000 feet of climb or descent to the assigned altitude or flight level, unless otherwise specified in an air traffic control instruction.

Head-up displays and vision systems

91.07.33 An owner or operator of an aircraft may only provide for the use of automatic landing systems, a head-up display or equivalent display, enhanced vision system, synthetic vision system, combined vision system, or any combination of those systems into a hybrid system for the safe operation of an aircraft, if –

- (a) such owner or operator has an approval to do so;
 - (b) such owner or operator complies with the requirements for automatic landing systems, a head-up display or equivalent display, enhanced vision system, synthetic vision system, combined vision system, as applicable, as provided for in Document NAM-CATS-OPS 91;
 - (c) such equipment meets the appropriate airworthiness certification requirements;
 - (d) such owner or operator has carried out a safety risk assessment of the operations supported by the automatic landing systems, a head-up display or equivalent display, enhanced vision system, synthetic vision system, combined vision system;
 - (e) the Executive Director has authorised operational credit for such operations with an aircraft equipped with automatic landing systems, a head-up display or equivalent display, enhanced vision system, synthetic vision system, combined vision system;
 - (f) such owner or operator of an aircraft has acquired a specific approval, if operational credit relates to low visibility operations, provided that such specific approval must not affect the classification of the instrument approach procedure.
 - (g) information necessary to support effective crew tasks for the operation is appropriately available to both pilots where the number of flight crew members specified in the operations manual or other documents associated with the certificate of airworthiness is more than one;
 - (h) such owner or operator has established and documented normal and abnormal procedures and a MEL;
 - (i) such owner or operator has established a training programme for the flight crew members and relevant personnel involved in the flight preparation;
 - (j) such owner or operator has established a system for data collection, evaluation and trend monitoring for low visibility operations for which there is an operational credit; and
 - (k) such owner or operator has instituted appropriate procedures with respect to continuing airworthiness maintenance and repair practices and programmes.
- (2) An owner or an operator of an aircraft must include suitable operational procedures for use of, and training requirements for such equipment, which must cover at least the following:
- (a) equipment limitations;
 - (b) operational credits as specified in Document NAM-CATS-OPS 91;
 - (c) flight planning;
 - (d) ground and airborne operations;
 - (e) crew resource management;
 - (f) standard operating procedures; and
 - (g) ATS flight plans and communication.

Electronic flight bags

91.07.34 (1) If an electronic flight bag is used on board an aircraft, the pilot-in-command and an operator or owner of the aircraft must –

- (a) assess the safety risk associated with each electronic flight bag function;
- (b) establish procedures for the use of, and training requirements for, each electronic flight bag function;
- (c) ensure that, in the event of electronic flight bag failure, sufficient information is readily available to a flight crew for the flight to be conducted safely;
- (d) ensure that requirements are established for redundancy of information contained and displayed by the electronic flight bag functions, if appropriate;
- (e) ensure that electronic flight bag equipment and its associated installation hardware, including interaction with aircraft systems if applicable, meet the appropriate airworthiness certification requirements; and
- (f) establish and document procedures for the management of electronic flight bag function including any database it may use.

(2) If a portable electronic flight bag is used on board an aircraft, a pilot-in-command and an owner or operator of such aircraft must ensure that such electronic flight bag does not affect the performance of aircraft systems, equipment or the ability to operate the aircraft.

Extended diversion time operation requirements

91.07.35 (1) An pilot-in-command or owner or operator conducting operations beyond 60 minutes, from a point on a route to an enroute alternate aerodrome must ensure that –

- (a) for all aircraft –
 - (i) enroute alternate aerodromes are identified; and
 - (ii) the most up-to-date information is provided to the flight crew on the identified enroute alternate aerodromes, including operational status and meteorological conditions;
- (b) for aeroplanes with two turbine engines, the most up-to-date information provided to the flight crew indicates that conditions at the identified enroute alternate aerodromes will be at or above the operator's established aerodrome operating minima for the operation at the estimated time of use.

(2) An owner or operators of an aircraft must, in addition to subregulation (1)(a) provide the overall level of safety intended by the provisions of this Part and ensure that the following are taken into account –

- (c) the operational control and flight dispatch procedures;
- (d) the operating procedures; and
- (e) the training programmes.

(11) Unless the operation has been specifically approved by the Executive Director, an aeroplane with two or more turbine engines may not be operated on a route where diversion time from any point on the route, calculated in international standards atmosphere and still air conditions at the one-engine inoperative cruise speed for aeroplanes with two turbine engines and at the all-engine operating cruise speed for aeroplanes with more than two turbine engines, to an adequate enroute alternate aerodrome, exceeds a threshold time established for such operation.

(12) The maximum diversion time, for an operator of a particular aircraft type engaged in extended diversion time operations must be approved by the Executive Director.

(13) The Executive Director must, when approving the appropriate maximum diversion time for an owner or operator for a particular aeroplane type engaged in extended diversion time operation, be satisfied that –

- (a) for all aeroplanes, the maximum diversion time may not exceed the value of the extended diversion time operation significant system time limitation, if any, indicated in the aircraft flight manual directly or by reference, reduced by an operational safety margin of 15 minutes; and
- (b) for an aeroplane with two turbine engines, the aeroplane is extended diversion time operation certified.

(14) Despite subregulation (5)(a) the Executive Director may, based on the results of a specific safety risk assessment conducted by the operator which demonstrates how an equivalent level of safety will be maintained, approve operations beyond the time limits of the most time-limited system.

(15) The specific safety risk assessment referred to in subregulation (6) must include at least the –

- (a) capabilities of the operator;
- (b) overall reliability of the aeroplane;
- (c) reliability of each time limited system;
- (d) relevant information from the aeroplane manufacturer; and
- (e) specific mitigation measures.

(16) For aeroplanes engaged in extended diversion time operation must for the additional fuel required under regulation 91.07.12 (4) include the fuel necessary to comply with the extended diversion time operation critical fuel scenario as established by the Executive Director.

(17) The pilot-in-command or owner or operator of aircraft may not proceed with a flight beyond the threshold time in accordance with subregulation (3), unless the identified enroute alternate aerodromes have been re-evaluated for availability and the most up to date information indicates that, during the estimated time of use, conditions at those aerodromes will be at or above the operator's established aerodrome operating minima for the operation and if any conditions is identified that would preclude a safe approach and landing at that aerodrome during the estimated time of use, an alternative course of action must be determined.

(18) The Executive Director must, when approving maximum diversion times for aeroplanes with two turbine engines, ensure that the following are taken into account in providing the overall level of safety intended –

- (a) reliability of the propulsion system;
- (b) airworthiness certification for extended diversion time operation of the aeroplane type; and
- (c) extended diversion time operation maintenance programme.

Disinfection of aircraft

91.07.36 (1) The Executive Director must, in consultation with public health authorities, establish and determine, based on a risk assessment, procedures providing for the conditions under which an aircraft is disinfected.

(2) An owner or operator of an aircraft must, in consultation with the Ministry responsible for Health and the Authority, establish procedures and conditions under which an aircraft must be disinfected.

Operations in required navigation performance designated airspace

91.07.37 A person may not operate an aircraft in required navigation performance designated airspace unless –

- (a) an required navigation performance operations procedures manual is available and is incorporating all amendments, approved in accordance with this Part for that aircraft and aircraft navigation system;
- (b) such operation is performed in accordance with procedures, instructions and limitations contained in an approved manual;
- (c) the instruments and equipment required by Document NAM-CATS 91 for a particular required navigation performance operation have been inspected and maintained in accordance with an approved maintenance program;
- (d) each flight crew member has adequate knowledge of, and is familiar with the aircraft concerned and –
 - (i) its navigation system; and
 - (ii) procedures to be used, including normal, abnormal and contingency procedures; and
- (e) the pilot-in-command has ensured that such aircraft and its navigation system are both approved by the Executive Director for required navigation performance operation and that an required navigation performance operation procedures manual is complied with for a planned route and any alternate routes.

Repatriation and relief flight

91.07.38 (1) The Executive Director must, in consultation with the Ministry, Ministry responsible for health and other relevant authorities, establish a policy or procedures to facilitate relief and repatriation flights.

(2) The Executive Director must, in consultation with the Ministry, Ministry of responsible for home affairs and immigration and other relevant authorities –

- (a) facilitate the entry, departure and transit of aircraft engaged in repatriation and relief flight; and
 - (b) take all possible measures to ensure the safe operation of repatriation and relief flight.
- (3) A repatriation and relief flight may commence as soon as possible after reaching agreement with the states involved.
- (4) The Authority must, after consultation with a holder of an aerodrome licence and other relevant stakeholders, ensure that personnel and carry-on baggage, hold baggage, cargo, and other goods arriving on repatriation and relief flight are cleared without delay.
- (5) An owner or operator of an aircraft must ensure that human remains infected with a communicable disease are transported according to the requirements stipulated in Annex 9 to the Convention and the applicable Ministry responsible for health and social services medical protocols.
- (6) An owner or operator of an aircraft must expedite clearance processes for entry or departure and transit of an aircraft, passengers, cargo, and other goods involved in repatriation and relief flight.

Security Programme

91.07.39 An owner or operator with an aircraft greater than 5700 kilogram must establish and maintain a requirement in its training programme, to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on an aircraft so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.

Low visibility operations

91.07.40 An owner or operator of an aircraft may not assign a pilot to conduct a low visibility take-off or Category II or III approach unless –

- (a) such an owner or operator has a specific approval issued by the Executive Director;
- (b) an LVO is conducted in accordance with procedures approved in its operations manual;
- (c) instrument approach operations in low visibility may only be conducted if runway visual range information is provided; and
- (d) minimum take-off runway visual range must be approved in its operations manual.

Minimum equipment list

91.07.41 (1) A person may not conduct a take-off in an aircraft with instruments or equipment that are not serviceable or that have been removed unless –

- (a) the aircraft is operated in accordance with a configuration deviation list;
- (b) the provisions specified in the aircraft flight manual ; or
- (c) the conditions or limitations specified in a MEL, which has been approved by the Executive Director, and in the opinion of the pilot-in-command aviation safety will not be compromised.

(2) An owner or operator of an aircraft must establish an MEL for each type of aircraft for which an MEL has been approved by a state of design of such an aircraft, provided such state is a contracting state.

(3) An operator may not operate an aircraft in accordance with an MEL unless such MEL is carried on board of an aircraft .

Landing on roads

91.07.42 A person may not use a public road as a place of landing or take-off in an aircraft, except –

- (a) in the case of an emergency involving the safety of the aircraft or its occupants;
- (b) for the purpose of saving human lives; or
- (c) when involved in civil defence or law-enforcement operations, provided that at all times reasonable care is taken for the safety of others with due regard to the prevailing circumstances.

Pilot-in-command picking up objects

91.07.43 The pilot-in-command of an aircraft in flight may not permit objects to be picked up except with the prior written approval of the Executive Director.

Operation of vehicle- or vessel-towed aircraft

91.07.44 (1) Except if prior written approval is obtained from the Executive Director and subject to such conditions as the Executive Director may impose, an aircraft which is intended, for flight purposes, to be towed by a vehicle or vessel travelling on the surface or to be moored on the surface, may not–

- (a) be flown higher than 150 feet above the surface on which the towing vehicle or vessel is travelling or to which such aircraft is moored;
- (b) be flown closer than five nautical miles from the boundary of an aerodrome; or
- (c) take-off from, land on or be flown above any public road.

(2) The provisions of subregulation (1)(a) and (b) do not apply to the winching or towing of gliders at the aerodrome of departure.

Following line features

91.07.45 An aircraft flying at or below 1 500 feet above the surface and following a power line, a road, a railway line, a river, a coastline or any other line feature within one nautical mile of such line feature, must be flown to the right of such line, road, railway line, river, coastline or other line feature, except when the aircraft is instructed to do otherwise by an air traffic service unit .

Aircraft speed

91.07.46 (1) Unless otherwise authorised by the Executive Director a person may not, fly an aircraft at an indicated air speed of more than 250 knots outside controlled airspace and below flight level 100.

(2) A person may not fly an aircraft within a control zone or an aerodrome traffic zone at an indicated air speed of more than 200 knots, unless if otherwise authorised or required by an air traffic service unit, provided that if the minimum safe indicated air speed for a particular flight is greater than the maximum indicated air speed provided for in this regulation, the aircraft may be flown at the minimum safe indicated air speed.

SUBPART 8 PERFORMANCE OPERATING LIMITATIONS

General provisions

91.08.1 (1) The owner or operator of an aircraft must ensure that, under all conditions that could reasonably be expected to be encountered, the aircraft is operated in compliance with –

- (a) the terms and conditions of the certificate of airworthiness and within the approved operating limitations contained in the aircraft flight manual issued in respect of such aircraft;
- (b) the operating limitations, the markings and placards as provided for by the appropriate authority of the State of Registry; and
- (c) the mass limitations provided for in Part 21 or as imposed by compliance with the applicable noise certification standards under which the aircraft was certified unless otherwise authorised in exceptional circumstances by the competent authority of the state in which the aerodrome is situated for a certain aerodrome or a runway where there is no noise disturbance problem.

(2) The owner or operator of an aircraft must take account of airframe configuration, environmental conditions and the operation of systems which may have an effect on the performance of the aircraft, when appropriate, including aircraft mass, operating procedures, the pressure altitude appropriate to the elevation of the aerodrome, temperature, wind, runway gradient and condition of runway.

(3) Placards and instrument markings, containing those operating limitations required by the type certificate or under regulation 183.00.3 to be visible to the flight crew, must be displayed in the aircraft.

(4) The pilot-in-command must determine whether the aircraft performance will permit the take-off and departure to be carried out safely.

Helicopter operating limitations

91.08.2 (1) Performance Class 3 helicopters may only be operated in conditions of weather and light, and over such routes and diversions from such routes, which may permit a safe forced landing to be executed in the event of an engine failure.

(2) The provisions of subregulation 1 apply to Performance Class 2 helicopters prior to the take-off decision point or after passing the landing decision point.

(3) Performance Class 1 helicopters may be operated from elevated heliports in built-up urban areas.

Helicopter performance classification

91.08.3 For performance purposes, helicopters are classified as follows –

- (a) Class 1 helicopter- is a helicopter with performance such that, in case of critical power unit failure, the helicopter is able to safely continue the flight to an appropriate landing, unless the failure occurs prior to reaching the take-off decision point or after passing the landing decision point, in which case the helicopter must be able to land within the rejected take-off or landing area;
- (b) Class 2 helicopter- is a helicopter with performance such that, in case of critical power unit failure, the helicopter is able to safely continue the flight, except when the failure occurs early during the take-off manoeuvre or late in the landing manoeuvre, in which case a forced landing may be required; and
- (c) Class 3 helicopter- is a helicopter with performance such that, in case of power unit failure at any point in the flight profile, a forced landing has to be performed.

Aeroplane performance classification

91.08.4 For performance purposes, aeroplanes are classified as follows –

- (a) Class A aeroplanes –
 - (i) multi-engine aeroplanes powered by a turbo-propeller engines with a maximum certificated take-off mass exceeding 5 700 kilograms; and
 - (ii) multi-engine turbojet-powered aeroplanes;
- (b) Class B aeroplanes- propeller-driven aeroplanes, other than single-engine aeroplanes, with a MCM of 5700 kilograms or less;
- (c) Class C aeroplanes- aeroplanes powered by two or more reciprocating engines with a maximum certificated take-off mass exceeding 5700 kilograms; and
- (d) Class D aeroplanes- single-engine aeroplanes.

Performance limitations Class A and Class C aeroplanes

91.08.5 (1) A owner or operator of a Class A or C aeroplane may not start a take-off unless the aeroplane is able, in the event of a critical power-unit failing at any point in the take-off, either to discontinue the take-off and stop within either the accelerate-stop distance available or the runway available or to continue the take-off and clear all obstacles along the flight path by an adequate margin until the aeroplane is in a position to safely transition to the enroute phase of flight.

(2) The adequate margin referred to in subregulation (1) must be determined as provided for in Document NAM-CATS-OPS 91.

(3) For the purposes of subregulation (1), the pilot-in-command must in determining the length of the runway available consider the loss, if any, of runway length due to alignment of the aeroplane prior to take-off.

(4) A owner or operator of a Class A or C aeroplane may not operate such aeroplane unless it is able, in the event of the critical engine becoming inoperative at any point along the route or planned diversions from such route, to continue the flight to an aerodrome at which the requirements of subregulation (5) can be met, without flying below the minimum obstacle clearance altitude at any point.

(5) A owner or operator of a Class A or C aeroplane may not operate such aeroplane unless it is able, at the aerodrome of intended landing and at any alternate aerodrome, after clearing all obstacles in the approach path by a safe margin, be able to land, with assurance that it can come to a stop or, for a seaplane, to a satisfactorily low speed, within the landing distance available and allow for expected variations in the approach and landing techniques, if such allowance was not made during the establishment of the aeroplane's performance data.

(6) An owner or operator of an aeroplane may, in meeting the requirements of subregulations (4) and (5), allow for normal fuel consumption and if applicable, the ability to jettison fuel en route.

(7) An owner or operator of aeroplanes without approved performance data may submit an alternative means of meeting the requirements of subregulations (1), (4) and (5) to the Executive Director for approval.

SUBPART 9 AIRCRAFT CONTINUING AIRWORTHINESS

General

91.09.1 (1) A owner, operator or pilot of an aircraft may not operate the aircraft unless such aircraft is maintained and released to service in accordance with the provisions of Part 43 or Part 44, as applicable to the aircraft.

(2) An owner or operator of an aircraft may assign the maintenance and release of his or her aircraft to an approved maintenance organisation by means of a written agreement.

Owner's continuing airworthiness responsibilities

91.09.2 (1) The owner of an aircraft, or in the case where it is leased, the lessee, must ensure that, in accordance with procedures acceptable to the Executive Director –

- (a) the aircraft is maintained in an airworthy condition;
- (b) the operational and emergency equipment necessary for an intended flight is serviceable; and
- (c) the certificate of airworthiness of the aircraft remains valid.

(2) The owner or operator of an aircraft may not operate an aircraft unless maintenance on the aircraft, including any associated engine, propeller, and part, is carried out –

- (a) by an organisation complying with NAM-Cockpit Audio Recording System-OPS Part 145, that is either approved by the Executive Director or is approved by another contracting state to ICAO and is accepted by the Executive Director; or
- (b) by a person or organisation in accordance with procedures that are authorised by the Executive Director,

and there is a maintenance release in relation to the maintenance carried out.

(3) The owner or operator of an aircraft must ensure that the maintenance of the aircraft is performed in accordance with a maintenance programme acceptable to the Executive Director.

Continuing airworthiness records

91.09.3 (1) The owner or operator of an aircraft must ensure that the following records are kept for the periods mentioned in subregulation (2) –

- (a) the total time in service (hours, calendar time and cycles, as appropriate) of the aircraft and all life-limited components;
- (b) the current status of compliance with all applicable mandatory continuing airworthiness information;
- (c) appropriate details of modifications and repairs;
- (d) the time in service hours, calendar time and cycles, as appropriate since the last overhaul of the aircraft or its components subject to a mandatory overhaul life;
- (e) the current status of the aircraft's compliance with the maintenance programme; and
- (f) the detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.

(2) The records in –

- (a) subregulation (1) (a) to (e) must be kept for a minimum period of 90 days after the unit to which they refer has been permanently withdrawn from service; and
- (b) subregulation (1) (f) must be kept for or a minimum period of one year after the signing of the maintenance release.

(3) If there is a –

- (a) temporary change of owner or operator, the records of such aircraft must be made available to the new owner or operator; or
- (b) permanent change of owner or operator, the records must be transferred to the new owner or operator.

(4) The records kept and transferred in accordance with this regulation must be maintained in a form and format that ensures readability, security, and integrity of the records at all times.

Modifications and repairs

91.09.4 (1) All modifications and repairs on an aircraft must comply with airworthiness requirements of Parts 43 and 44 acceptable to the Executive Director.

(2) The records of the modifications and repairs substantiating data approved design data supporting compliance with the airworthiness requirements must be retained as contemplated in regulation 43.03.3.

Maintenance release

91.09.5 (1) If maintenance is carried out by an approved maintenance organisation, the maintenance release must be issued by the approved maintenance organisation as contemplated in Part 145.

(2) If maintenance is not carried out by an approved maintenance organization, the maintenance release must be completed and signed by a person appropriately licenced in accordance with Part 66 to certify that the maintenance work performed has been completed satisfactorily and in accordance with data and procedures acceptable to the Executive Director.

(3) If maintenance is not carried out by an approved maintenance organisation, the maintenance release must include the following –

- (a) basic details of the maintenance performed;
- (b) the date such maintenance was completed; and
- (c) the identity of the authorised person or persons signing the release.

SUBPART 10

CARBON OFFSETTING REDUCTION SCHEME FOR INTERNATIONAL AVIATION

Applicability

91.10.1 (1) This Subpart applies to an owner or operator of an aircraft that –

- (a) is attributed to Namibia in accordance with regulation 91.10.2; and
- (b) produces annual CO₂ emissions greater than 10,000 tonnes from the use of an aircraft with a maximum certificated take-off mass greater than 5700 kilogram conducting international flights on or after 1 January 2019.

(2) This Subpart is not applicable to –

- (a) a humanitarian flight;
- (b) a medical flight;
- (c) a firefighting flight; and
- (d) a flight preceding or following a humanitarian, medical, or fire fighting flight, as provided for in Document NAM-CATS-OPS 91.

(3) The formulae and units, related to the carbon offsetting reduction scheme, are provided for in Document NAM-CATS-OPS 91.

Attribution of aircraft owner or operator to Namibia

91.10.2 (1) A owner or operator of aircraft with international flights must be identified and considered attributed to Namibia if the aircraft owner or operator –

- (a) has an ICAO designator;
- (b) has a valid air operator certificate, or equivalent, issued by the Executive Director; and
- (c) is registered as a juristic person or is a natural person with resident status in Namibia.

(2) If a owner or operator of an aircraft changes its attributes and is attributed to a new state but has not established a new entity or a subsidiary, the new state must become the state to which

the aircraft operator fulfils its requirements under this Subpart at the start of the next compliance period.

(3) A owner or operator of an aircraft and its wholly owned subsidiary aircraft operator may be treated as a single consolidated aircraft operator liable for compliance with the requirements of this subpart, subject to the approval of the Executive Director.

(4) An emissions monitoring plan of an aircraft operator with a wholly owned subsidiary aircraft owner or operator must be accompanied by documentary proof of ownership of that subsidiary aircraft operator.

Attribution of international flights to an aircraft operator

91.10.3 (1) A owner or operator of an aircraft must identify international flights that are attributed to it in terms of subregulation (2).

(2) An attribution of a specific international flight to a owner or operator of an aircraft must be determined as follows:

- (a) if the aircraft identification of a flight plan contains the ICAO Designator, that international flight must be attributed to the aircraft owner or operator that has been assigned this designator;
- (b) if the aircraft identification of a flight plan contains a nationality or common mark, and registration mark of an aircraft that is explicitly listed in an air operator certificate, a flight concerned must be attributed to the aircraft owner or operator that holds such air operator certificate; and
- (c) if an aircraft has not been identified in terms of subparagraph (a) or (b), an international flight must be attributed to an aircraft owner or operator who must be considered the aircraft operator.

(3) A owner or operator of an aircraft must, upon request by the Executive Director, provide information to identify an actual aircraft operator of a particular flight.

(4) A owner or operator of an aircraft may, by contract, delegate the administrative requirements of this Subpart to a third party, provided that a delegated third party is not the same entity as a verification body.

(5) Despite subregulation (4), liability for compliance may not be delegated and must remain with the aircraft operator in all situations.

Record keeping, compliance periods and equivalent procedure

91.10.4 (1) A owner or operator of an aircraft must keep records relevant to this Subpart for a period of 10 years.

(2) The Authority must keep records relevant to a aircraft owner or operator of an aircraft's CO₂ emissions per state pair in order to calculate the aircraft owner or operator's offsetting requirements during the 2030 to 2035 compliance periods.

(3) A owner or operator of an aircraft must comply with the compliance periods for carbon offsetting reduction scheme as provided for in Document NAM-CATS-OPS 91.

(4) If a owner or operator of an aircraft makes use of equivalent procedures, instead of the procedures provided for in this Subpart, such equivalent procedures may be approved by the

Executive Director if such equivalent procedures comply with the requirements in Document NAM-CATS-OPS 91.

Monitoring requirements of aircraft operator's annual CO₂ emissions

91.10.5 (1) The monitoring requirements of an aircraft operator's annual CO₂ emissions as provided for in Document NAM-CATS-OPS 91 must be applicable to an aircraft owner or operator of an aircraft from the year after it qualifies to be classified in terms of regulation 91.10.1.

(2) The monitoring requirements referred to in subregulation (1) must be applicable to a new entrant from the year after it meets the requirements referred to in regulation 91.10.1.

Eligibility of monitoring methods

91.10.6 (1) CO₂ emissions monitoring methods provided for in Document NAM-CATS-OPS 91 must be considered as eligible, if an aircraft owner or operator monitors and records its fuel use from international flights, in accordance with an eligible monitoring method provided for in subregulations (3) and (4).

(2) A owner or operator of an aircraft must use the same eligible monitoring method for the compliance period in accordance with an Emissions monitoring *plan* approved by the Executive Director.

(3) A owner or operator of an aircraft must comply with the compliance period provided for in Document NAM-CATS-OPS 91.

(4) The eligibility thresholds, for the use of an eligible monitoring method for the 2019 to 2020 compliance period and the 2021 to 2035 compliance period, must be as provided for in Document NAM-CATS-OPS 91.

Emissions monitoring plan

91.10.7 (1) A owner or operator of an aircraft must –

- (a) develop an emissions monitoring plan as provided for in Document NAM-CATS-OPS 91;
- (b) submit an emissions monitoring plan in the form and with the information and timelines as provided for in Document NAM-CATS-OPS 91, to the Executive Director for approval;
- (c) if it is a new entrant, submit an emissions monitoring plan to the Executive Director for approval within 90 days of falling within the scope of applicability; and
- (d) submit any material or substantial change on information contained in an emissions monitoring plan to the Executive Director for approval.

(2) A owner or operator of an aircraft must inform the Executive Director of any change to an emissions monitoring plan even if the aircraft operator does not consider such change to be a material change.

(3) The Executive Director must inform an aircraft owner or operator, during an approval process of an emissions monitoring plan, of a level of aggregation for which a reporting of number or flight and CO₂ emissions must be conducted.

Calculation of CO₂ emissions from aircraft fuel use

91.10.8 (1) A owner or operator of an aircraft must –

- (a) apply a fuel density value to calculate fuel mass where an amount of fuel uplift is determined in units of volume;
- (b) record fuel density which may be an actual or a standard value of 0.8 kilogram per litre that is used for operational and safety reasons such as in an operational, flight or technical log; and
- (c) detail a procedure for informing the use of actual or standard density in an emissions monitoring plan along with a reference to a relevant aircraft operator documentation.

(2) A owner or operator of an aircraft using a fuel use monitoring method must determine CO₂ emissions from international flights, using the following equation:

$$CO_2 = \sum_f M_f * FCF_f$$

Where:

CO_2 = CO₂ emissions (in tonnes);

M_f = Mass of fuel f used (in tonnes); and

FCF_f = Fuel conversion factor of given fuel f , equal to 3.16 (in kg CO₂/kg fuel) for Jet-A fuel and 3.10 (in kg CO₂/kg fuel) for AvGas or Jet-B fuel.

Monitoring of carbon offsetting reduction scheme eligible fuel claims

91.10.9 (1) A owner or operator of an aircraft intending to claim for emissions reduction from the use of carbon offsetting reduction scheme eligible fuel must –

- (a) use carbon offsetting reduction scheme eligible fuel that meets the carbon offsetting reduction scheme sustainability criteria as provided for in Document NAM-CATS-OPS 91; and
- (b) only use carbon offsetting reduction scheme eligible fuel from a fuel producer that is certified by an approved sustainability certification scheme as provided for in Document NAM-CATS-OPS 91.

(2) If a owner or operator of an aircraft fails to or cannot demonstrate that the fuel used by his or her aircraft meets the carbon offsetting reduction scheme sustainability criteria as provided for in Document NAM-CATS-OPS 91, such fuel may not be accounted for as carbon offsetting reduction scheme eligible fuel.

Reporting requirements for aircraft operator annual CO₂ emissions

91.10.10 (1) An aircraft owner or operator of an aircraft –

- (a) must submit to the Executive Director, a copy of a verified emissions report for approval and a copy of an associated verification report in accordance with the timeline as provided for in Document NAM-CATS-OPS 91;
- (b) must ensure that an emissions report contains the information as provided for in Document NAM-CATS-OPS 91;

- (c) must report a number of international flights and CO₂ emissions in accordance with a level of aggregation decided on by the Executive Director during an approval process of an emissions monitoring plan, which must either be at a level of state pair or aerodrome pair;
 - (d) that uses a CERT is not required to report information on a type and mass of fuel used and must use the standardised emissions report template provided in Document NAM-CATS-OPS 91 for submission;
 - (e) reporting on its consolidated CO₂ emissions from international flights, during the 2019-2020 period, must append to the main emission report the disaggregated data relating to each subsidiary aircraft operator; and
 - (f) may request the Authority in writing, not to publish its CO₂ emissions monitoring data, as provided for in Document NAM-CATS-OPS 91.
- (2) The Executive Director may publicly publish CO₂ emissions data after consultation with a concerned aircraft operator.
- (3) A person aggrieved by the decision of the Executive Director to publicly publish CO₂ emissions data may appeal against that decision as provided for in these regulations.

Claims for carbon offsetting reduction scheme eligible fuel

91.10.11 (1) An owner or operator of an aircraft may not include carbon offsetting reduction scheme eligible fuel traded or sold to a third party from its total reported quantity of carbon offsetting reduction scheme eligible fuel.

(2) An owner or operator of an aircraft must declare other GHG schemes it participates in if emissions reduction from the use of carbon offsetting reduction scheme eligible fuel may be claimed, and that it has not made claims for the same batches of carbon offsetting reduction scheme eligible fuel under those schemes.

(3) An owner or operator of an aircraft must provide supplementary information as provided for in Document NAM-CATS 91 within a given compliance period, in order to claim emissions reduction from the use of carbon offsetting reduction scheme eligible fuel in an emissions report.

(4) An owner or operator of an aircraft may make carbon offsetting reduction scheme eligible fuel claim referred to in subregulation (3) on an annual basis in order to ensure all documentation is submitted timeously.

(5) An owner or operator of an aircraft must follow the procedures provided in Document NAM-CATS 91 to purchase fuel from a supplier downstream from a fuel blender.

Verification of CO₂ emissions

91.10.12 (1) An aircraft owner or operator's emissions report must be verified annually as follows –

- (a) by performing an internal pre-verification of its emissions report prior to the verification by a verification body;
- (b) by a verification body for the aeroplane operator's annual emissions report; and

- (c) by a verification body that is included in the list provided for in Document NAM-CATS 91.
- (2) A verification body must conduct a verification according to ISO 14064-3:2006, and the relevant requirements provided for in Document NAM-CATS-OPS 91.
- (3) A verified emissions report must be submitted, as provided for in Document NAM-CATS-OPS 91.
- (4) The requirements for the verification of carbon offsetting reduction scheme eligible fuel are as follows –
 - (a) fuel purchases, transaction reports, fuel blending records and sustainability credentials must constitute documentary proof for the purpose of verification and approval of emissions reductions from the use of carbon offsetting reduction scheme eligible fuel; and
 - (b) an aircraft owner or operator or its representative, must verify the production records for the carbon offsetting reduction scheme eligible fuel that it purchases as provided for in Document NAM-CATS-OPS 91.

Error corrections to emissions report

91.10.13 (1) If an error in an aircraft owner or operator's reported emissions has been identified by the Authority, by the verification body or by a owner or operator of an aircraft after CO₂ emissions have been submitted to ICAO, the Executive Director must –

- (a) update the reported CO₂ emissions to address an error identified; and
 - (b) assess any implications with respect to a owner or operator of an aircraft offsetting requirements in previous years and if necessary, make arrangements to compensate for the error during a compliance period in which an error has been identified.
- (2) The Executive Director must report an error in a owner or operator of an aircraft CO₂ emissions report and the results of a follow-up on related adjustments to ICAO.

Requirements for addressing data gaps

91.10.14 (1) An aircraft owner or operator of an aircraft using a fuel use monitoring method, must fill data gaps using the ICAO carbon offsetting reduction scheme cert, as provided for in Document NAM-CATS 91, provided that data gaps during a compliance period do not exceed the following thresholds -

- (a) 2019-2020 period: 5% of international flights; and
 - (b) 2021-2035 period: 5% of international flights subject to offsetting requirements.
- (2) A owner or operator of an aircraft must correct concerns identified with data and information management system in a timely manner to mitigate ongoing data gaps and system weaknesses.
- (3) If a owner or operator of an aircraft notices that it has data gaps and system weaknesses that exceed the threshold referred to in subregulation (1), the aeroplane operator must engage with the Executive Director to take remedial action to address the identified data gaps and system weaknesses.

(4) If a owner or operator of an aircraft exceeds the threshold referred to in subregulation (1), such owner or operator must state the percentage of international flights for the 2019-2020 period, or flights subject to offsetting requirements for the 2021-2035 period that had data gaps and must provide an explanation to the Executive Director in their annual emissions report.

(5) Aowner or operator of an aircraft must fill all data gaps and correct systematic errors and misstatements prior to the submission of an emissions report.

CO₂ offsetting requirements

91.10.15 (1) The offsetting requirements of carbon offsetting reduction scheme –

(a) must be applicable from 1 January 2021 to 31 December 2035, to an aircraft operator referred to in regulation 91.10.1, whose international flights are between Namibia and states defined in Document NAM-CATS-OPS 91.

(b) may not be applicable to a new entrant aircraft owner or operator of an aircraft –

(i) for thee years starting from the year when such owner or operator meets the requirements under regulation 91.10.1; or

(ii) until the annual CO₂ emissions exceed 0.1 percent of its total CO₂ emissions from international flights in 2020, whichever occurs first.

(2) The Methods of calculation of emissions for offsetting requirements are as provided for in Document NAM-CATS-OPS 91.

(3) The Authority must calculate the annual aircraft owner or operator's final CO₂ offsetting requirements, based on the data reported in accordance with Chapter 2 of the carbon offsetting reduction scheme methodology for calculating actual life cycle emissions values and the applicability requirements as provided for in Document NAM-CATS-OPS 91.

Total final CO₂ offsetting requirements for given compliance period with emissions reductions from use of carbon offsetting reduction scheme eligible fuels

91.10.16 (1) The amount of CO₂ emissions required to be offset by an aircraft owner or operator of an aircraft after considering emissions reductions from the use of carbon offsetting reduction scheme eligible fuels from 1 January 2021 to 31 December 2035 given compliance period, must be calculated by the authority using the requirements provided for in Document NAM-CATS-OPS 91.

(2) If a owner or operator's of an aircraft total final offsetting requirements during a compliance period FORc is negative, the negative offsetting requirements may not be carried forward to subsequent compliance periods and such an aircraft operator may not have offsetting requirements for the compliance period.

(3) The total final offsetting requirements of an aircraft owner or operator of an aircraft must, during a compliance period FORc, be rounded up to the nearest tonne of CO₂.

(4) The Executive Director must inform an owner or operator of an iarcraft of its total final offsetting requirements, for a compliance period, according to the timelines for the given compliance period 2019 to 2020 as provided for in Document NAM-CATS 91.

Cancellation of carbon offsetting reduction scheme eligible Emissions Units

91.10.17 (1) The carbon offsetting reduction scheme eligible emissions units must be as provided for in Document NAM-CATS-OPS 91.

(2) The cancellation of emissions units must be applicable to an aircraft owner or operator of an aircraft subject to the offsetting requirements stipulated in regulation 91.10.15.

(3) A owner or operator of an aircraft must meet the offsetting requirements stipulated in regulation 91.10.15, as calculated by the authority, by cancelling carbon offsetting reduction scheme eligible emissions units in a quantity equal to its total offsetting requirements, for a given compliance period, FORc.

(4) A owner or operator of an aircraft must, to comply with subregulation (3), –

(a) cancel such carbon offsetting reduction scheme eligible emissions units within a registry, designated by a carbon offsetting reduction scheme eligible emissions unit programme, in accordance with the timelines as provided for in Document NAM-CATS-OPS 91; and

(b) request each carbon offsetting reduction scheme eligible emissions unit programme registry to make visible on the registry's public website, information on each of such aeroplane operator's cancelled carbon offsetting reduction scheme eligible emissions units, for a given compliance period, in terms of the timelines as provided for in Document NAM-CATS-OPS 91.

(5) Information for each cancelled carbon offsetting reduction scheme eligible emissions unit must include consolidated identifying information in an emissions unit cancellation report, as provided for in Document NAM-CATS-OPS 91.

Accreditation of verification body

91.10.18 (1) A owner or operator of an aircraft must engage a verification body, accredited by a national accreditation body, to ISO 14065:2013, ISO/IEC 17011:2004 and the relevant requirements as provided for in Document NAM-CATS-OPS 91, for the verification of its emissions unit cancellation report.

(2) A verification body must be accredited and comply with the standards specified in ISO 14064:3:2006, and the relevant requirements provided for in Document NAM-CATS-OPS 91.

(3) A owner or operator of an aircraft must upon request, by a verification body, provide access to relevant information on the cancellation of emissions units.

Verification of Emissions Unit Cancellation Report

91.10.19 (1) An aircraft owner or operator must report to the Authority the cancellation of carbon offsetting reduction scheme eligible emissions units carried out in accordance with regulation 91.10.18, to meet its total final offsetting requirements for a given compliance period, by submitting to the Executive Director for approval –

(a) a copy of a verified emissions unit cancellation report; and

(b) a copy of an associated verification report.

(2) An emissions unit cancellation report submitted to the Authority must contain information and be in accordance with the timelines provided for in Document NAM-CATS-OPS 91.

(3) A verification body referred to in regulation 91.10.18 must independently submit a copy of emissions unit cancellation report and associated verification report, to the Executive Director, in accordance with the timelines as provided for in Document NAM-CATS-OPS 91.

(4) The Executive Director must perform an order of magnitude check of emissions unit cancellation report submitted in terms of subregulation (3), in accordance with the timeline, as provided for in Document NAM-CATS-OPS 91.

Substitution of Part 121 of Regulations

5. The Regulations are amended by the substitution for Part 121 of the following Part:

“PART 121 AIR TRANSPORT OPERATIONS - CARRIAGE ON AEROPLANES OF 20 OR MORE PASSENGERS OR CARGO

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SUBPART 1 GENERAL

Applicability

- 121.01.1** (1) This Part applies to –
- (a) any Namibian operator, engaged in a commercial air transport operation, using an aeroplane registered in Namibia –
 - (i) having a maximum certificated passenger seating capacity of 20 or more as authorised on the initial type certificate issued to the aeroplane;
 - (ii) operating in an all-cargo configuration having a maximum certificated take-off mass of greater than 8 618 kilogrammes;
 - (iii) that is authorised by the Executive Director to be operated under this Part; or
 - (iv) that is required by the Executive Director to be operated under this Part, based on the size or complexity of the aeroplane;
 - (b) any aircraft that is authorised by the Executive Director to be operated under this Part;
 - (c) persons employed, or otherwise engaged by the operator referred to in subregulation (1)(a) or (b), who perform functions essential to the operation of aeroplanes operated under this Part; and

(d) persons, mail or cargo on board an aeroplane operated under this Part.

(2) For the purposes of this Part, an aeroplane registered in another State and operated by the holder of an air operator certificate issued in Namibia, must be considered to be registered in Namibia.

Admission to flight deck

121.01.2 (1) An operator and the pilot-in-command of any aeroplane operated under this Part must ensure that no person, other than the flight crew members assigned to a flight, is admitted to, or carried on the flight deck of the aeroplane unless the person is –

- (a) an authorised officer, inspector or authorised person; or
- (b) permitted by, and carried in accordance with, the instructions contained in the operations manual referred to in regulation 121.04.2.

(2) Despite subregulation (1), the pilot-in-command may, in the interests of safety, deny a person admission to or remove the person from the flight deck and any decision to deny admission to or remove a person from the flight deck must be reported to the operator and must include the reasons for the decision.

(3) The admission of any person to the flight deck must not interfere with the operation of the aeroplane.

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

Passenger intoxication and unruly behaviour

121.01.3 (1) An operator may not permit a person to enter or be in an aeroplane while under the influence of alcohol or a drug having a narcotic effect, to the extent where the safety of the aeroplane or its occupants is, or is likely to be, endangered.

(2) An operator must establish procedures to ensure that any person referred to in subregulation (1) is-

- (a) refused embarkation; or
- (b) if the person is on board, restrained or disembarked.

(3) Each passenger on board an aeroplane must obey any command issued by a flight crew member in the performance of his or her duties.

Compliance with laws, regulations and procedures

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

(2) An operator must publish in the operations manual referred to in regulation 121.04.2, the information, procedures and instructions as is necessary to ensure its personnel are familiar with and in compliance with the laws, regulations and procedures pertinent to their duties with respect to –

- (a) flight operations into or within domestic and foreign airspace;
- (b) the area over which the operation will occur;
- (c) the aerodromes to be used; and
- (d) air navigation facilities to be used.

(3) Despite subregulation (2), each operator, including its employees or agents, must comply with all applicable provisions of the regulations.

(4) The Authority must immediately notify a foreign operator and if warranted, a State of an Operator and a State of Registry, as the case may be, if –

- (a) a non-compliance or suspected non-compliance with applicable laws of Namibia by a foreign operator is identified; or
- (b) a potential serious safety issue, similar to one encountered by another operator, is identified.

(5) The Authority must consult with a State of an Operator and a State of Registry, as applicable, concerning safety standards maintained by a foreign operator, if a notification as specified in subregulations (4) is issued and it warrants a resolution.

Regulatory infractions during emergency situations

121.01.1 (1) Where a pilot-in-command of an aeroplane takes action considered necessary to ensure the safety of the aeroplane which results in a violation of any regulation of a State in, or over which an aeroplane is being operated, he or she must comply with the requirements of regulation 91.02.6 and, where possible, cause the event to be marked on a cockpit voice recorder.

(2) Despite any requirement to file a report in terms of regulation 91.01.2, a pilot-in-command must submit a full report of a violation referred to in subregulation (1), to a person responsible for operations within 48 hours after the conclusion of flight concerned in the manner specified in a concerned operator's operations manual.

(3) A pilot-in-command must within 48 hours following an act of unlawful interference whereby the pilot-in-command was incapacitated, report the act to the Authority and a relevant foreign authority.

Language proficiency

121.01.6 (1) In addition to the English Language Proficiency referred to in Part 61 an operator may not assign a flight crew to duty unless at least one member of the flight crew has demonstrated to the operator, his or her ability to speak and understand the language used for radiotelephony communications over any route and aerodrome named in the operational flight plan for that flight.

(2) The level of language proficiency required to be demonstrated to the operator must be as provided for in Document NAM-CATS-OPS 121.

SUBPART 2
OPERATIONS PERSONNEL REQUIREMENTS

DIVISION ONE: MINIMUM CREW REQUIREMENTS

Composition of flight crew

121.02.1 (1) The minimum number and composition of the flight crew must not be less than the minimum number and composition specified in the aeroplane's aircraft flight manual referred to in regulation 121.04.4.

(2) An operator must allocate additional flight crew members when it is required by the type of operation, and the number of the additional flight crew members must not be less than the number specified in the operations manual referred to in regulation 121.04.2.

(3) An operator may not assign a person as a flight crew member on an aeroplane and a person may not act as a flight crew member on an aeroplane unless the person meets the qualification requirements specified in regulation 121.02.10.

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

(5) The flight crew must include at least one member who is proficient in navigating over the route to be flown.

(6) Where the aeroplane's aircraft flight manual referred to in regulation 121.04.4 specifies the requirement for the minimum flight crew to include a flight engineer, an operator must ensure that a flight engineer, who meets the qualifications specified in regulation 121.02.12, is assigned to each flight.

(7) An operator must designate for each flight a pilot-in-command and a second-in-command.

(8) The flight crew must include at least one member who holds a flight navigator licence in all operations where, as determined by the Executive Director, navigation necessary for the safe conduct of the flight cannot be adequately accomplished by the pilots from the pilot station.

Minimum requirements for assignment as pilot-in-command

121.02.2 (1) An operator may not assign a pilot-in-command, and a flight crew member may not accept any assignment to act as a pilot-in-air flight crew member as command of any aeroplane, unless the crew member meets the minimum flight time requirements to act as a pilot-in-command and he or she meets the operating experience requirements in Document NAM-CATS-OPS 121.

(2) The Executive Director may, in the interests of safety, require a pilot-in-command to have additional flight time experience prior to operating in that position.

(3) An operator must publish the minimum flight time for assignment and operating experience requirements for a pilot-in-command in its operations manual.

Crew pairing and in-flight relief of flight crew members

121.02.3 (1) An operator must publish procedures in its operations manual to ensure flight crew members who do not meet the crew pairing standards in Document NAM-CATS-OPS 121 are not simultaneously assigned to flight duty.

(2) A flight deck crew member may be relieved in flight of his or her flight deck duties by another flight deck crew member qualified in accordance with regulation 121.02.10.

(3) A flight engineer may be relieved in flight by a flight crew member who is qualified in accordance with regulation 121.02.10 or by a suitably qualified flight crew member acceptable to the Executive Director.

(4) An operator may not assign a person, and a person may not accept an assignment, to provide in-flight relief for the purpose of extending any flight duty period, unless the relief pilot holds the minimum qualifications specified in regulation 121.02.10.

Flight and cabin crew member emergency duties

121.02.4 (1) An operator and where appropriate, the pilot-in-command must assign to each flight and cabin crew member concerned the necessary functions to be performed in an emergency or a situation requiring emergency evacuation and the operator must establish emergency evacuation procedures based on such assignment.

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

(3) With respect to the emergency evacuation procedures required by subregulation (1) –

(a) the operator must prove to the satisfaction of the Executive Director that the procedures to accomplish the evacuation have been adopted and are adequate; and

(b) the procedures must be demonstrated by the operator's flight and cabin crew members and carried out in accordance with the requirements in Document NAM-CATS-OPS 121.

(4) An operator must carry out the emergency evacuation demonstration referred to in subregulation (3)(b) when a new type or variant of aeroplane or new configuration of an existing aeroplane is introduced for use and has not been certified under a certification process acceptable to the Executive Director, as provided for in Document NAM-CATS-OPS 121.

(5) A person may not use an aircraft type and model in commercial air transport passenger-carrying operations unless the operator has first conducted, for the Authority, an actual full-capacity emergency evacuation demonstration for the configuration in 90 seconds or less.

(6) The Executive Director may approve a partial-capacity demonstration instead of a full-capacity demonstration where the operator can produce evidence that –

(a) a satisfactory full-capacity emergency evacuation for the aircraft to be operated was demonstrated during the aircraft type certification or during the certification of another operator; or

- (b) there is an engineering analysis, which shows that an evacuation is still possible within the 90 second standard, if the operator's aircraft configuration differs with regard to the number of exits or exit type or number of cabin crew members.

(7) Where the Executive Director has approved the partial evacuation demonstration referred to in subregulation (6), the demonstration must be performed in the manner prescribed in Document NAM-CATS-OPS 121.

(8) The emergency evacuation procedures referred to in subregulation (1) must be contained in the operator's operations manual referred to in regulation 121.04.2 and must form part of the operator's emergency training programme.

(9) An operator may not assign any emergency function, and a flight or cabin crew member may not perform any emergency function, unless the crew member has been trained to perform emergency functions in accordance with the approved emergency training programme of the operator.

Cabin crew member complement

121.02.5 (1) An operator may not operate an aeroplane with a certificated passenger seating capacity of 20 or 20 or more in a passenger-carrying service unless –

- (a) one or more cabin crew members have been assigned to duty, if one or more passengers are carried; and
- (b) the minimum number of cabin crew members assigned to a flight is not less than that specified in Document NAM-CATS-OPS 121, despite the actual number of passengers on board the aeroplane.

(2) Where, in consideration of the size, complexity and physical layout of the aeroplane, the Executive Director is of the opinion that it would be in the interest of safety, he or she may, despite the aeroplane's certificated seating capacity –

- (a) require one or more cabin crew members licensed in terms of Part 64 to be assigned to duty; or
- (b) require the operator to demonstrate a capability to provide an equivalent level of safety as would be achieved by paragraph (a).

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

(4) In unforeseen circumstances, the operator may reduce the required minimum number of cabin crew members but –

- (a) the number of passengers must be reduced in accordance with the procedures specified in the operations manual referred to in regulation 121.04.2; and
- (b) a report on the reduction of the cabin crew members and passengers must be submitted to the Executive Director after completion of the flight.

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

121.02.6 (1) A cabin crew member may not operate on more than three aeroplane types except where the Executive Director approves the operation on a fourth aeroplane type, but

the emergency and safety equipment and procedures for at least two of the aeroplane types must be similar.

(2) The types of aeroplanes which are considered to be similar in respect of emergency and safety equipment and procedures must be based on the factors listed in Document NAM-CATS-OPS 121.

Senior cabin crew member

121.02.7 (1) An operator must appoint a senior cabin crew member whenever more than one cabin crew member is carried on board an aeroplane operated under this Part.

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

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

Cabin crew emergency evacuation stations

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

Seating of cabin crew members during flight

121.02.9 During take-off and landing, and whenever considered necessary by the pilot-in-command in the interests of aviation safety, cabin crew members must be seated at their assigned stations or seats, on all decks which are occupied by passengers.

DIVISION TWO: QUALIFICATION REQUIREMENTS

Flight crew member qualifications

121.02.10 (1) An operator may not permit a person to act and a person may not act as the flight crew member of an aeroplane unless, in addition to the recency requirements in regulation 91.02.4, the person –

- (a) holds valid licences, certificates and ratings as required by Part 61 and Part 63 appropriate to the assignment;
- (b) meets the type and variant training and checking requirements specified in Subpart 3 and has otherwise fulfilled all applicable training requirements specified in Document NAM-CATS-OPS 121;
- (c) in the case of the pilot-in-command assigned to duty on a passenger-carrying flight, meets the area, route and aerodrome familiarisation requirements specified in Document NAM-CATS-OPS 121;
- (d) in the case of a cruise relief pilot, within the previous 90 days, has –
 - (i) operated as a pilot-in-command, co-pilot or cruise relief pilot on the same type of aeroplane; or

- (ii) completed flying skill refresher training including normal, abnormal and emergency procedures specific to cruise flight on the same type of aeroplane or in a flight simulation training device approved for that purpose, and has practised approach and landing procedures, where the approach and landing procedure practise may be performed as the pilot who is not flying the aeroplane.

(2) A pilot who does not meet the recency requirements in regulation 91.02.4 or whose training and checking validity periods have lapsed must regain competency as provided for in the regaining competency requirements specified in Subpart 3.

(3) Unless otherwise approved by the Executive Director, an operator may not assign a person to act, and a person may not act, as the pilot-in-command or second-in-command on more than –

- (a) two different types of large aeroplanes, for which a separate licence endorsement is required, under this Part;
- (b) one type of aeroplane under this Part and an additional two aircraft types of a maximum certificated take-off mass in excess of 5 700 kilogrammes, for which a separate licence endorsement is required, if operating under Parts 127 or 135; or
- (c) two different types of aeroplanes for which a separate licence endorsement is required under this Part and an additional different aircraft type of a maximum certificated take-off mass in excess of 5 700 kilogrammes, for which a separate licence endorsement is required, if operating under Parts 127 or 135.

(4) A pilot operating on more than one type of aeroplane under this Part must meet the requirements specified in Document NAM-CATS-OPS 121.

(5) An operator may permit a person to act and a person may act as the flight crew member of an aeroplane under this Part where the person does not meet the requirements of subregulation (1) if –

- (a) the aeroplane is operated on a training, ferry or positioning flight; or
- (b) the operator –
 - (i) is authorised to do so in its operations specifications, and
 - (ii) otherwise complies with the provisions of this Part.

Area, route and aerodrome qualifications

121.02.11 (1) An operator may not assign, and a pilot may not act as pilot-in-command of an aeroplane engaged in passenger-carrying a pilot to act as a pilot-in-command, unless the pilot-in-command, has familiarised himself or herself with the area, route and aerodromes to be operated over or into prior to operating there, including consideration of –

- (a) the aerodrome operating minima, terrain and minimum safe altitudes;
- (b) the en-route and aerodrome meteorological conditions, in particular any localized adverse weather patterns;
- (c) the meteorological, communication and air traffic and search and rescue facilities, services and procedures, as appropriate;

- (d) the aerodrome obstructions, physical layout, approach aids and arrival, departure, holding and instrument approach procedures and weather minima;
- (e) the procedures applicable to flight paths over densely inhabited areas and areas of higher traffic density; and
- (f) with respect to the navigational capability associated with the route along which the flight is to take place –
 - (i) the use of the equipment needed to navigate the route; and
 - (ii) the navigational facilities and procedures, including any long-range or specialised navigation procedures or equipment, to be used.

(2) An operator must establish in its operations manual the means by which the pilot-in-command is to become familiar with the area, route and aerodromes over or into which he or she is to operate.

Flight engineer qualifications

121.02.12 An operator may not assign a person to act, and a person may not act, as a flight engineer on board an aeroplane unless the person –

- (a) holds a valid licence, certificates and appropriate ratings issued in terms of Part 63; and
- (b) has fulfilled the requirements of the approved training and checking programme including line induction as specified in Subpart 3.

Cabin crew member qualifications

121.02.13 An operator may not assign a person to act, and a person may not act, as a cabin crew member on board an aeroplane unless the person –

- (a) holds a valid licence and appropriate ratings issued in terms of Part 64;
- (b) has successfully completed the operator's approved training programme outlined in Subpart 3, except that a person may act as a cabin crew member while undergoing familiarisation training if the person is carried in addition to the number of cabin crew members required by regulation 121.02.5(1) and is under the supervision of a cabin crew member; and
- (c) has successfully completed familiarisation training within 180 days after completing the operator's training programme or has regained qualification in accordance with Subpart 3.

Flight operations officer qualifications

121.02.14 An operator may not permit a person to act and a person may not act as a flight operations officer unless he or she –

- (a) meets the training and checking requirements specified in Subpart 3 and
- (b) holds a flight operations officer certification specifying authorised duty assignments issued by the operator that is acceptable to the Executive Director.

Ground personnel qualifications

121.02.15 Where an operator employs ground personnel to provide essential ground support services appropriate to the aeroplanes and type of service being operated, the operator must ensure –

- (a) persons assigned to the handling of dangerous goods are qualified to do so in accordance with Subpart 3; and
- (b) persons assigned to provide direct service to an operator's aeroplane or any passenger, cargo or mail intended to be carried aboard the aeroplanes, are trained and qualified as appropriate to their assignments.

DIVISION THREE: FLIGHT TIME AND DUTY LIMITATIONS

Flight time and duty scheme

121.02.16 (1) An operator must –

- (a) establish a scheme for the regulation of flight time and duty periods, rest periods and days free of duty as applicable, for each flight crew member and flight operations officer and that complies with –
 - (i) the flight time and duty period limitations, rest periods and days free of duty, specified in Document NAM-CATS-OPS 121; or
 - (ii) a system of flight time and duty period limitations, rest periods and days free of duty proposed by the operator where the Executive Director is of the opinion that an equivalent level of safety may be achieved by the operator's proposed scheme; and
- (b) publish the scheme referred to in subregulation (1)(a) in the operations manual referred to in regulation 121.04.2.

(2) An operator may not assign an assignment to a flight crew member, and a flight crew member may not accept an assignment if the assignment is not in compliance with the scheme referred to in subregulation (1)(a) or if –

- (a) the operator or flight crew member knows or has been made aware that the flight assignment will cause the flight crew member to exceed the flight time and duty periods referred to in subregulation (1)(a) while on flight duty; or
- (b) the flight crew member 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 aeroplane or its flight crew members and passengers.

(3) An operator may not schedule a flight crew member for flight time for a period exceeding eight consecutive hours during any given flight time and duty period unless authorised in the scheme referred to in subregulation (1)(a).

(4) Where any flight crew member, cabin crew member or flight operations officer is aware of any reason they would be in violation of the scheme referred to in subregulation (1)(a), that person must, without delay, inform the operator.

- (5) For the purposes of this regulation, the operator must be taken to mean –

- (a) the appropriate management personnel if time permits;
- (b) the duty crew scheduler of the operator;
- (c) the duty person responsible for operational control over the flight; or
- (d) in the case of a cabin crew member, the pilot-in-command or the cabin crew member's immediate supervisor.

(5) The provisions to be included in a flight time and duty scheme referred to in subregulation (1) must be as provided for in Document NAM-CATS-OPS 121.

Fatigue risk management system

121.02.17 (1) An operator who establishes a scheme for the regulation of flight time and duty periods in accordance with regulation 121.02.16(1)(a)(ii) must establish a fatigue risk management system for the purpose of managing fatigue.

- (2) An operator's fatigue risk management system must contain, as a minimum –
 - (a) a fatigue risk management system policy;
 - (b) a fatigue risk management process;
 - (c) a safety assurance process; and
 - (d) a fatigue risk management system promotion process:

specified in Document NAM-CATS-OPS 121.

(3) An operator must designate a person responsible for the fatigue risk management system who meets the qualifications and experience requirements and who will be responsible for the functions as provided for in Document NAM-CATS-OPS 121.

- (4) A fatigue risk management system established in terms of subregulation (1) must –
 - (a) be based upon scientific principles, knowledge and operational experience with the aim of ensuring that flight crew and cabin crew members are performing at an adequate level of alertness; and
 - (b) be integrated with the safety management system.

Approval of fatigue risk management system

121.02.18 (1) An operator must submit to the Executive Director their proposed fatigue risk management system which complies with regulation 121.02.17(2).

(2) The Executive Director must approve the commencement of a trial phase for implementation of the proposed fatigue risk management system for a trial period of up to 36 months if the Executive Director is satisfied that the operator has complied with regulation 121.02.17(2).

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

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

(5) After a 24 months period an operator, approved under subregulation (2) may apply to the Executive Director for full approval by providing evidence that the fatigue risk management system is delivering the required safety outcomes.

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

Fatigue risk management system manual

121.02.19 An operator must draw up a fatigue risk management system containing all the information required under this Part and publish the content in their operations manual as provided for in Document NAM-CATS-OPS 121.

SUBPART : TRAINING AND CHECKING

DIVISION ONE: GENERAL

Operator approved training and checking programme

121.03.1 (1) An operator must establish, implement and maintain a training and checking programme for all personnel referenced in Divisions One to Four of this Subpart that will ensure the personnel are adequately trained and qualified to perform their assigned duties and the personnel must undergo the training from that operator, except as provided in Document NAM-CATS-OPS 121.

(2) The training programme referred to in subregulation (1) must be conducted by an aviation training organisation approved in accordance with Part 141 or by the operator if approved by the Executive Director as provided in regulation 121.03.2 but if approved to be conducted by the operator –

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

(3) The training programme referred to in subregulation (1) must be approved by the Executive Director as provided in regulation 121.03.2.

- (4) An operator must ensure that –

- (a) prior to assignment to duty, each person required to receive training in accordance with this Subpart, must, whether employed on a full time or part time basis, receive the training as appropriate to his or her duties in accordance with the provisions in Document NAM-CATS-OPS 121;
 - (b) each person required to receive the training referred to in paragraph (a), must pass a written examination or other comprehension assessment acceptable to the Executive Director and where applicable, complete a skills test as specified in this Subpart; and
 - (c) the training facilities, equipment and personnel are acceptable to the Executive Director and, in the case of training and checking personnel, must meet the requirements specified in Document NAM-CATS-OPS 121.
- (5) The training and checking programme referred to in subregulation (1) must comply with Document NAM-CATS-OPS 121.
- (6) The training programme referred to in subregulation (1) must include a system of record keeping referred to in regulation 121.04.8.
- (7) The training records referred to in subregulation (6) must be retained as provided in regulation 121.04.8.
- (8) An operator must publish the training programme referred to in regulation 121.03.1 in the operations manual referred to in regulation 121.04.2.

Approval of training programme

- 121.03.2** (1) An operator must submit its ground and flight training programme and any amendments to its ground and flight training programme to the Executive Director for approval.
- (2) The initial and final approval process must be as provided for in Document NAM-CATS-OPS 121.
- (3) The Executive Director may approve an operator to have its training programme either in whole or in part contracted to another organisation in accordance with Document NAM-CATS-OPS 121.

DIVISION TWO: FLIGHT CREW MEMBER TRAINING

Flight crew member training

- 121.03.3** (1) An operator must provide ground and flight training to its flight crew members that includes at least the following training components –
- (a) company induction training on an initial basis;
 - (b) crew resource management training including human factors, risk analysis and error management training;
 - (c) emergency procedures training including –
 - (i) the location, inspection schedules, testing as applicable and use of all emergency equipment required to be carried, or otherwise carried on board the aeroplane;

- (ii) emergency evacuation, and where applicable ditching training; and
 - (iii) training in the functions for which each flight crew member is responsible and the relation of these functions to the functions of other crew members, particularly in regard to abnormal or emergency procedures.
- (d) initial aeroplane type training including visual, instrument and special flight procedures as applicable, crew coordination in all types of emergency situations, normal, abnormal, emergency and supplementary procedures for the type of aeroplane assigned to;
 - (e) recurrent training;
 - (f) upgrade training;
 - (g) cruise relief pilot training;
 - (h) line induction training on initial aeroplane assignment or upgrade;
 - (i) differences and familiarisation training where the operator intends to assign a flight crew member to variant types, in accordance with regulation 121.02.10(1)(b);
 - (j) pilot qualification to operate in either pilot seat;
 - (k) regaining recency or qualification training when required;
 - (l) area, route and aerodrome familiarization training;
 - (m) airborne collision avoidance system or ACAS II training, as applicable, including ACAS II cyclic training, if applicable, to at least the pilot-in-command where the aeroplane is required to be operated with an approved, serviceable airborne collision avoidance system;
 - (n) upset prevention and recovery training;
 - (o) reduced vertical separation minima training as applicable;
 - (p) line-oriented flight training;
 - (q) dangerous goods training if dangerous goods are authorised to be carried or dangerous goods awareness training if they are not; and
 - (r) any other course of studies required by the Executive Director as provided for in Document NAM-CATS-OPS 121 to ensure full competency of personnel on new or special equipment installed in the operator's aeroplane or other operations requiring specialised training.

(2) Except where noted in Document NAM-CATS-OPS 121, all training components listed in subregulation (1) must be provided on an initial and an annual recurrent basis and meet the requirements specified in Document NAM-CATS-OPS 121.

Advanced qualification programme

121.03.4 (1) The Executive Director may, upon application by an operator, approve the incorporation of an advanced qualification programme into the operator's approved

training programme but the advanced qualification programme must meet the conditions specified in Document NAM-CATS-OPS 121.

(2) The advanced qualification programme must ensure a level of proficiency is maintained at least to the standards required by Division 5 of this Subpart.

DIVISION THREE: TRAINING OF CABIN CREW MEMBERS

Type and differences training

121.03.5 (1) A cabin crew member must 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 aeroplane type.

(2) An operator must ensure that each cabin crew member successfully completes the initial aeroplane type training as provided for in Document NAM-CATS-OPS 121 before undertaking flight operations with the operator.

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

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

Operator induction training

121.03.6 (1) An operator must ensure that each cabin crew member has completed the operator induction training, specified in the operations manual referred to in regulation 121.04.2, before undertaking duties assigned to them.

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

(3) An operator induction training referred to in subregulation (1) must consist of the subject matter specified in Document NAM-CATS-OPS 121.

Familiarisation flights

121.03.7 An operator must ensure that upon completion of type training, differences training or requalification training, each cabin crew member undertakes familiarisation flights before acting as one of the minimum number of cabin crew members referred to in regulation 121.02.5.

Recurrent training

121.03.8 (1) An operator must 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 aeroplane type or variant in accordance with the requirements as provided for in Document NAM-CATS-OPS 121.

(2) An operator must ensure that the recurrent training and checking programme syllabus includes theoretical and practical instruction, as well as individual practice and the syllabus must

be based on those training items from the initial aeroplane type training programme the Executive Director considers necessary.

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

Refresher and requalification training

121.03.9 (1) An operator must ensure that a cabin crew member who has not been absent from all flying duties and has not acted as a cabin crew member on a particular aeroplane type for a period of up to and including six months, completes –

- (a) a refresher training as provided for in Document NAM-CATS-OPS 121 in the aeroplane type; or
- (b) two familiarisation sectors during commercial operations in the aeroplane type,

before undertaking duties on the aeroplane type.

(2) An operator must ensure that each cabin crew member who has been absent from all flying duties for more than six months completes the requalification training as provided for in Document NAM-CATS-OPS 121.

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

Employees and service agent training

121.03.10 (1) An operator must provide initial, recurrent and refresher training and checking as provided for in Document NAM-CATS-OPS 121 for any person whose function is essential to safe operations in terms of this Part.

- (2) The training will be given to at least –
 - (a) flight operations officers and flight followers;
 - (b) ground service personnel whose function involves working in, on or around the operator's aeroplanes; and
 - (c) any other person considered necessary by the Executive Director.

DIVISION FIVE: TRAINING, CHECKING, CERTIFICATION AND VALIDITY

Training, checking, certification and validity periods

121.03.11 (1) An operator must provide checks including an inflight proficiency line check or demonstration of competency as provided for in Document NAM-CATS-OPS 121.

(2) The issue of any certificate or other means of certifying competency must be as provided for in Document NAM-CATS-OPS 121.

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

- (a) for flight crew members –
 - (i) training is valid to the first day of the thirteenth month following the month in which the training took place;
 - (ii) except as provided in subparagraph (iv), a pilot proficiency check is valid to the first day of the seventh month following the month in which a pilot proficiency check took place, but any two pilot proficiency checks that are similar in nature and occur within four months of each other do not satisfy this requirement;
 - (iii) where an operator is approved to conduct an advanced qualification training programme on specific aeroplane types, the approvals allow for pilot proficiency check on those types to be valid to the first day of the thirteenth month following the month in which the pilot proficiency check took place; and
 - (iv) a line check is valid until the first day of the thirteenth month following the month in which a line check took place;
- (b) for cabin crew members –
 - (i) training is valid to the first day of the thirteenth month following the month in which the training took place;
 - (ii) examinations and competency checks are valid to the first day of the thirteenth month following the month in which the examination or check took place; and
 - (iii) an inflight proficiency check must be valid for a period of 12 months.
- (c) for persons other than flight or cabin crew members –
 - (i) for a flight operations officer, training and checks are valid to the first day of the thirteenth month following the month the training or demonstration of competency took place; and
 - (ii) for all others, training and checks are valid to the first day of the twenty-fifth month following the month the training, check or demonstration of competency took place.

(4) Where any required training, check or demonstration of competency is renewed within the last 90 days of its validity period, its validity period is extended by 6, 12 or 24 months, as appropriate.

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

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

Flight crew proficiency checks and initial type rating

121.03.12 (1) A flight crew member must undergo a proficiency check, referred to in this Part, in respect of an aeroplane with a turbo fan which includes a light jet, at least once every six months in a flight simulator, approved for the purpose.

(2) If a flight crew member undergoes an initial type rating for a turbo fan aeroplane on an actual aircraft, an approved simulator course must be completed within six months of initial type rating.

(3) An operator may be granted permission to deviate from a proficiency check requirement for a particular type of aeroplane for a period not exceeding six months but the operator must demonstrate a satisfactory equivalent of the requirement.

(4) The Executive Director may, on application, exempt an operator from the requirements of subregulations (1) and (2) where the operator submits proof that –

- (a) a flight simulator is not available;
- (b) a flight simulator does not exist for a particular aeroplane in which the contemplated abnormal and emergency procedures may be simulated; or
- (c) the relevant abnormal or emergency procedures can be safely carried out in the particular concerned aircraft, or in a similar aircraft.

(5) A permission referred to in subregulation (3) and an exemption granted in terms of subregulation (4) must be issued on a case by case basis upon consideration of a safety case and risk assessment, and must be withdrawn when a suitable device becomes available.

(6) When an operator is granted a permission to deviate from a current proficiency check requirement, a subsequent proficiency check must be performed on a simulator unless it is proven that a simulator does not exist.

**SUBPART 4
DOCUMENTATION AND RECORDS**

Documentary requirements

121.04.1 (1) An operator must ensure that, in addition to the requirements in regulation 91.03.1, the following documents or electronic equivalents are carried on board an aeroplane during flight –

- (a) copy of operational flight plan;
- (b) a special loads notification (notification to captain), if applicable;
- (c) an insurance certificate or proof of insurance;
- (d) a certified copy of the latest updated air operator certificate and operations specifications;
- (e) a load and trim sheet referred to in regulation 121.04.9;
- (f) a copy of the standard operating procedures or aircraft operating manual, as applicable;

- (g) a copy of the operations manual referred to in regulation 121.04.2 or the portions of it required to be carried;
- (h) a copy of dangerous goods report as specified in Part 92, if applicable; and
- (i) copies of documents required to be carried on board in terms of regulation 91.03.1.

(2) An operator must ensure that the following documents are retained in a safe place at the first point of departure in respect of each flight undertaken by the aeroplane:

- (a) a copy of the operational flight plan;
- (b) copies of the relevant parts of the flight folio or technical log;
- (c) the load and trim sheet referred to in regulation 121.04.9;
- (d) the passenger list or cargo manifest;
- (e) the notification to captain, if applicable; and
- (f) a general declaration in the case of an aeroplane engaged in international flights.

(3) Except when otherwise instructed by the Executive Director, the documents referred to in subregulation (2) must be retained at the operator's main base of operations, or other location if approved by the Executive Director, for a period of at least 90 days.

Operations manual

121.04.2 (1) An operator must draw up an operations manual containing all information required under this part and setting out the manner in which the operator will operate the air service for which the operator is licensed in terms of the Air Services Act.

- (2) An operator must ensure that –
- (a) all parts of the operations manual are consistent and compatible in form and content and must not contravene the conditions contained in the air operator certificate or operations specifications issued to the operator in terms of regulation 121.06.3;
 - (b) the operations manual can be readily amended;
 - (c) the operations manual contains an amendment control page and a list of effective pages showing the effective date for each page in the operations manual; and
 - (d) the operations manual has the date of the last amendment to each page specified on that page that agrees with the list of effective pages.

(3) An operator must submit the operations manual in the English language in duplicate to the Executive Director for approval.

- (4) If the Executive Director is satisfied that the operator –
- (a) will comply with the provisions of regulation 121.06.7; and
 - (b) will not operate the air service concerned contrary to any provision of the Act or the Air Services Act,

the Executive Director must certify in writing on both copies of the operations manual that the operations manual has been approved and must return one copy of the approved operations manual to the operator.

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

(6) An operator must submit an amendment to its operations manual in duplicate to the Executive Director for approval and if the Executive Director is satisfied that the operator will comply with the provisions of subregulation (4), the Executive Director must certify in writing on both copies of the amendment to the approved operations manual that the amendment has been approved and must return one copy of the approved amendment to the operator.

(7) An operator must at all times operate its aeroplanes in accordance with the approved operations manual or an approved amendment to its approved operations manual.

- (8) An operator must –
 - (a) ensure that all operations personnel are able to understand the technical language used and that the information provided will ensure that the personnel are properly instructed in their particular duties and responsibilities and the relationship of the duties to the operation as a whole;
 - (b) ensure that every flight is conducted in accordance with the operations manual and that those parts of the operations manual which are required for the conduct of a flight are easily accessible to the crew members on board during flight time;
 - (c) make the operations manual available for the use and guidance of operations personnel;
 - (d) provide the crew members with their own personal copy of the sections of the operations manual which are relevant to the duties assigned to them and designating such crew members as operations manual holders;
 - (e) provide each operations manual holder with copies of all amendments after approval by the Executive Director and ensure that the operations manual holders do insert the amendments issued to them prior to their next flight assignment; and
 - (f) keep the operations manual in a safe place.

(9) The structure and contents of the operations manual referred to in subregulation (1) must be as provided for in Document NAM-CATS-OPS 121.

Aircraft operating manual

121.04.3 (1) An operator must compile an aircraft operating manual and make it available during flight time to all flight crew members assigned to the aeroplane and each flight crew member must operate the aeroplane in accordance with the aircraft operating manual and the operator must also provide the portions of the aircraft operating manual to other operator's employees or agents where their need to know can be established.

(2) The aircraft operating manual must contain the information specified in Document NAM-CATS-OPS 121 and must be submitted to the Executive Director for approval.

(3) An operator must provide each flight crew member with amendments to the aircraft operating manual.

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

(5) The aircraft operating manual may be included in the operations manual referred to in regulation 121.04.2 or be published as a standalone document as part of the manual system.

Aircraft flight manual

121.04.4 (1) An operator must maintain and operate its aeroplanes in accordance with the approved aircraft flight manual required by regulation 91.03.2.

(2) An operator must maintain a system that ensures timely receipt and insertion of all aircraft flight manual revisions as published by the aeroplane manufacturer or as required by the Executive Director.

(3) Where an operator provides an aircraft operating manual that meets the requirements of subregulation (2) the aircraft flight manual referred to in regulation 91.03.2 is not required to be carried on board the aeroplane.

Operational flight plan

121.04.5 (1) An operator must ensure that an operational flight plan that meets the requirements specified in Document NAM-CATS-OPS 121 is completed for each flight undertaken by its aeroplanes in terms of this Part.

(2) The procedures for the use of the operational flight plan and a copy of it must be contained in the operations manual referred to in regulation 121.04.2.

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

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

Flight time and duty period records

121.04.6 (1) An operator must-

(a) maintain current flight time and duty period records of all crew members and flight operations officers in the 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 or, for flight operations officers, from their last date of employment.

(2) A flight crew member who is employed by more than one operator or otherwise accumulates flight time outside of his or her employment, must maintain an accurate record of flight time and duty periods and must provide copies of that record to all operators by whom the crew member is employed.

(3) While a flight crew member is responsible to report all flight activity, each employer is responsible for ensuring that the crew member concerned does not exceed the limits specified in the flight time and duty scheme of the operator referred to in regulation 121.02.16.

Records of emergency and survival equipment

121.04.7 (1) An operator must compile a list of all the survival and emergency equipment to be carried in the aeroplane and must have the list available at all times for immediate communication to rescue coordination centres.

(2) The survival and emergency equipment list must be included in the operations manual referred to in regulation 121.04.2.

(3) The format and minimum information to be included in the survival and emergency equipment list must be as provided for in Document NAM-CATS-OPS 121.

Training records

121.04.8 (1) An operator must establish a training file for each person required to receive training and retain on the file a record of all training and checking required in terms of Subpart 3 and the records of training and checking must contain at least the information specified, and be retained for the period of time specified, in Document NAM-CATS-OPS 121.

(2) An operator must establish procedures to make an employee's training file available for supervised review by the employee, but all training files must remain in the custody of the operator.

Load and trim sheet

121.04.9 (1) An operator –

- (a) registered in Namibia and operated into, within or from Namibia under a licence issued in terms of the Air Services Act; or
- (b) registered in a foreign State and operated into, within or from Namibia under a foreign operator's permit issued in terms of the Air Services Act,

must ensure that a flight is not undertaken by the aeroplane unless the person superintending the loading of the aeroplane has completed and certified a load and trim sheet.

(2) A load and trim sheet must be completed in duplicate and one copy must be carried in the aeroplane and one copy must be retained in accordance with the provisions of regulation 121.04.1.

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

(4) The minimum contents of a load and trim sheet must be as provided for in Document NAM-CATS-OPS 121.

Aeroplane search procedure checklist

121.04.10 (1) An operator must ensure that there is on board a checklist of the procedures to be followed in searching for a bomb in case of suspected sabotage and for inspecting aeroplanes for concealed weapons, explosives or other dangerous devices when a well-founded suspicion exists that the aeroplane may be the object of an act of unlawful interference.

(2) The checklist referred to in subregulation (1) must be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the aeroplane where such information is available from the manufacturer including where appropriate, any means of attenuating and directing the blast for use at the least-risk bomb location.

(3) Where the operator accepts the carriage of weapons removed from passengers, the aeroplane should have provision for stowing such weapons in a place so that they are inaccessible to any person during flight time.

Preservation of documents

121.04.11 (1) An operator must retain any document required in terms of this Subpart for the period of time specified in this Subpart even where, prior to the expiry of the retention period, the operator ceases to maintain ownership or possession of the aeroplane concerned or employ the personnel concerned.

(2) Completed flight preparation forms must be kept by the operator for a period of 90 days.

Cosmic radiation records

121.04.12 An operator must, for each flight of an aeroplane above 49 000 feet, maintain records so that the total cosmic radiation dose received by each crew member over a period of 12 consecutive months can be determined.

SUBPART 5 AEROPLANE INSTRUMENTS AND EQUIPMENT

General

121.05.1 (1) In addition to the minimum equipment necessary for the issue of a certificate of airworthiness, the instruments and equipment specified in the following paragraphs must be installed in an aeroplane according to the aeroplane used and to the circumstances under which the flight is to be conducted.

(2) The instruments and equipment required under this Subpart, including their installation, must be approved or accepted by the Executive Director.

Approval of instruments and equipment

121.05.2 (1) For the purposes of this Subpart, any reference to the initial date of a type certificate or certificate of airworthiness means the first time that type certificate or certificate of airworthiness was issued for that aircraft type.

(2) An operator must ensure that a flight does not commence unless the instruments and equipment required under this Subpart, or otherwise installed on an aircraft are such that they will enable a flight crew to control the flight path of the aircraft, carry out any required procedural manoeuvres and observe the operating limitations of the aircraft in the expected operating conditions and are –

- (a) approved and installed in accordance with the requirements, including operational and airworthiness requirements, applicable to the instruments and equipment; and

- (b) in a condition for safe operation of a kind being conducted, except as provided for in its minimum equipment list.
- (3) An operator must not be required to obtain approval for –
 - (a) fuses referred to in regulation 91.04.2;
 - (b) an independent portable light for each required crew member, readily accessible to the crew member when seated at his or her designated station 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 91.04.13;
 - (e) megaphones referred to in regulation 91.04.21;
 - (f) survival equipment referred to in regulation 91.04.24 and 91.04.25; and
 - (g) medical equipment referred to in regulation 121.05.14.
- (4) An agent used in a built-in fire extinguisher for each lavatory disposal receptacle for towels, paper or waste in an aeroplane which was first issued with a certificate of airworthiness on or after 31 December 2011, and an extinguishing agent used in a portable fire extinguisher in an aeroplane which was first issued with a certificate of airworthiness on or after 31 December 2016 must –
 - (a) meet the applicable specified minimum performance requirements; and
 - (b) not be of a type listed in the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer.
- (5) Information regarding extinguishing agents to be used in an aeroplane is contained in Document NAM-CATS-OPS 121.
- (6) A person must not conduct a take-off in an aeroplane with an instrument or equipment that is unserviceable or that has been removed, where the instrument or equipment is required by –
 - (a) the standards of airworthiness that apply to a type of flight being operated;
 - (b) any equipment list published by an aeroplane manufacturer indicating aeroplane equipment that is required for an intended flight;
 - (c) an air operator certificate;
 - (d) an airworthiness directive; or
 - (e) this Part.

Flight, navigation and associated equipment for aeroplanes operated under visual flight rules

121.05.3 (1) An operator may not operate an aeroplane in accordance with visual flight rules, unless the aeroplane is equipped with –

- (a) a magnetic compass;
 - (b) an accurate time-piece showing the time in hours, minutes and seconds;
 - (c) a sensitive pressure altimeter with a subscale setting, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight;
 - (d) an airspeed indicator system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing;
 - (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 on the flight deck the outside air temperature in degrees Celsius.
- (2) The second pilot's station must 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 system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing;
 - (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) For flights, the duration of which does not exceed 60 minutes, which commence and end at the same aerodrome, and which remain within 25 nautical miles of the aerodrome, the instruments specified in subregulation (1)(f), (g) and (h), and subregulation (2)(d), (e) and (f), may be replaced by a turn-and-slip indicator, or a turn coordinator incorporating a slip indicator, or both an attitude indicator and a slip indicator.

(4) A large commercial air transport aeroplane being operated by night must be equipped in accordance with the flight and navigation instruments referred to in regulation 121.05.3.

Flight, navigation and associated equipment for aeroplanes operated under instrument flight rules

121.05.4 (1) An operator may not operate an aeroplane in accordance with instrument flight rules, unless the aeroplane is equipped with –

- (a) a magnetic compass;
- (b) an accurate time-piece showing the time in hours, minutes and seconds;

- (c) two sensitive pressure altimeters with subscale settings, calibrated in hectopascals, adjustable any barometric pressure setting likely to be encountered during flight and the altimeters must have counter drum-pointer or equivalent presentation;
 - (d) 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;
 - (e) a vertical-speed indicator;
 - (f) a turn-and-slip indicator or a turn co-ordinator, incorporating a slip indicator;
 - (g) an attitude indicator;
 - (h) a stabilised direction indicator;
 - (i) a means of indicating on the flight deck the outside air temperature in degrees Celsius;
 - (j) an alternate source of static pressure for the altimeter and the airspeed and vertical-speed indicators;
 - (k) a chart holder in an easily readable position which can be illuminated, if to be operated at night;
 - (l) a means of indicating whether the power supply to the gyroscopic instrument is adequate;
 - (m) in the case of a multi-engine aeroplane, at least two independent electrical generating systems each operated by separate engines and individually capable of powering all required instruments and equipment necessary for safe emergency operation of the aeroplane;
 - (n) in the case of the pressure altitude reporting transponder specified in regulation 91.04.5(1)(l) –
 - (i) all aeroplanes for which the individual certificate of airworthiness is first issued after 1 January 2009 must be equipped with a data source that provides pressure-altitude information with a resolution of 25 feet or better; and
 - (ii) after 1 July 2012, all aeroplanes must be equipped with a data source that provides pressure-altitude information with a resolution of 25 feet or better; and
 - (o) communication, navigation and surveillance equipment as provided for in Subpart 5 of Part 91.
- (2) The second-in-command's station must 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;

- (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 addition to the flight and navigation equipment referred to in subregulations (1) and (2), an aeroplane must be equipped with a single standby attitude indicator, capable of being used from either pilot's station which –

- (a) is powered continuously during normal operation and, after a total failure of the normal electrical generating system is powered from a source independent of the normal electrical generating system;
- (b) 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;
- (c) operates independently of any other attitude indicating system;
- (d) is operative automatically after total failure of the normal electrical generating system and provides a clear indication on the instrument panel that the attitude indicator(s) is or are being operated by emergency power; and
- (e) is appropriately illuminated during all phases of operation,

but 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.

(4) Where the standby attitude indicator referred to in subregulation (3) has its own dedicated power supply, there must be an associated indicator, either on the instrument or instrument panel, when the power supply is in use.

(5) Instruments that are used by any pilot must be so arranged as to permit the pilot to see their indications readily from his or her station with the minimum practicable deviation from the position and line of vision normally assumed when looking forward along the flight path.

Altitude alerting system

121.05.5 (1) A large turbine-engine aeroplane may not be operated unless it is equipped with an altitude alerting system capable of –

- (a) alerting flight deck crew members upon approaching preselected altitude in either ascent or descent in sufficient time to establish level flight at the preselected altitude; and
- (b) alerting by at least an aural signal the flight deck crew members when deviating above or below a preselected altitude.

(2) A large turbine-engine aeroplane may not be operated unless the aeroplane is equipped with a pressure-altitude reporting transponder which operates in accordance with the requirements stipulated in Part 171 and is capable of –

- (a) providing pressure-altitude information with a resolution of 25 feet, or better from its aeroplane data source; and
- (b) automatically providing information on its airborne or on-ground status by means of a Mode S transponder.

Terrain awareness and warning system

121.05.6 (1) All turbine-engine aeroplanes of a maximum certificated take-off mass in excess of 15 000 kilogrammes or authorised to carry more than 30 passengers, for which the individual certificate of airworthiness is first issued on or after 1 July 1979, must be equipped with a terrain awareness and warning system.

(2) All turbine-engine aeroplanes of a maximum certificated take-off mass in excess of 5 700 kilogrammes or authorised to carry more than nine passengers, for which the individual certificate of airworthiness is first issued on or after 1 January 2010, must be equipped with a terrain awareness and warning system which has a predictive terrain avoidance function.

(3) All turbine-engine aeroplanes authorised under this Part to carry passengers must be equipped with a terrain awareness and warning system which has a predictive terrain avoidance function.

(4) As from 1 January 2013 all piston-engine aeroplanes of a maximum certificated take-off mass in excess of 5 700 kilogrammes or authorised to carry more than nine passengers must be equipped with a terrain awareness and warning system which provides the warnings contemplated in subregulation (6)(a) and (c), warning of unsafe terrain clearance and a predictive terrain avoidance function.

(5) A terrain awareness and warning system must automatically provide a timely and distinctive warning to the flight crew when the aeroplane is in potentially hazardous proximity to the surface of the earth.

(6) A terrain awareness and warning system must provide, unless otherwise specified herein, warnings of the following circumstances –

- (a) excessive descent rate;
- (b) excessive terrain closure rate;
- (c) excessive altitude loss after take-off or go-around;
- (d) unsafe terrain clearance while not in landing configuration –
 - (i) gear not locked down; or
 - (ii) flaps not in a landing position; and
- (e) excessive descent below the instrument glide path.

(7) A person may not inhibit or otherwise render inoperative any required terrain awareness and warning system during flight time except in accordance with the approved aeroplane flight manual.

(8) An operator must implement database management procedures that ensure a timely distribution and update of current terrain and obstacle data to terrain awareness and warning system.

Airborne weather radar equipment

121.05.7 (1) Subject to the provisions of subregulation (2), an operator may not operate the aeroplane whenever the aeroplane is being operated by night or in instrument meteorological conditions in an area where thunderstorms or other potentially hazardous weather conditions, regarded as detectable with airborne weather radars, may be expected to exist along the route unless the aeroplane is equipped with airborne weather radar equipment.

(2) In the case of a non-pressurized aeroplane, the airborne weather radar equipment may however be substituted by other approved equipment, which is capable of detecting thunderstorms and other potentially hazardous weather conditions, and of providing the flight crew with bearing and distance of the detected conditions.

Cosmic radiation detection equipment

121.05.8 An operator of an aeroplane which is intended to be operated above 49 000 feet, must ensure that the aeroplane is equipped with an instrument to measure and indicate continuously the dose rate of total cosmic radiation being received and the cumulative dose on each flight.

Flight deck crew interphone system

121.05.9 An operator may not operate an aeroplane unless the aeroplane is equipped with a flight deck crew interphone system, including headsets and microphones, not of a hand-held type, for use by all flight deck crew members.

Flight crew interphone system

121.05.10 (1) An operator may not operate an aeroplane with a maximum certificated take-off mass exceeding 15 000 kilogrammes and a maximum approved passenger seating configuration of 20 or more seats, unless the aeroplane is equipped with a flight crew interphone system.

- (2) The flight crew interphone system must –
- (a) operate independently of the public address system except for handsets, microphones, selector switches and signalling devices;
 - (b) provide a means of two-way communication between the flight deck crew compartment and each –
 - (i) passenger compartment;
 - (ii) galley located on another level than on a passenger deck level;
 - (iii) isolated flight crew compartment;
 - (c) be readily accessible for use from each of the required flight deck crew stations on the flight deck;
 - (d) be readily accessible for use at the required cabin crew member 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 flight deck crew members to alert the cabin crew and for use by cabin crew members to alert the flight deck 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 flight deck crew members.

Public address system

121.05.11 (1) An operator of aeroplane with a maximum approved passenger seating configuration of 20 or more seats, may not operate the aeroplane unless the aeroplane is equipped with a public address system.

- (2) The public address system must –
 - (a) operate independently of the interphone systems referred to in regulations 121.05.8 and 121.05.9, except for handsets, microphones, selector switches and signalling devices;
 - (b) be readily accessible for immediate use from each required flight deck crew member station;
 - (c) be readily accessible for use from at least one cabin crew member station in the cabin;
 - (d) in the case of a public address system microphone intended for cabin crew member use, be positioned adjacent to a cabin crew member 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 the public address system is accessible;
 - (f) be audible and intelligible in all phases of flight at all passenger seats, toilets and cabin crew member seats and stations; and
 - (g) be powered continuously during normal operation.

Equipment to clear windshield regulation

121.05.12 Aeroplanes with a maximum certificated take-off mass of more than 5 700 kilogrammes must be equipped at each pilot station with a means to maintain a clear portion of the windshield during precipitation.

Internal doors and curtains

121.05.13 (1) An operator may not operate an aeroplane unless the aeroplane is equipped with –

- (a) a door between a passenger compartment and a flight deck compartment with a locking device to prevent passengers from opening it without the permission of a flight deck crew member;
- (b) means by which cabin crew may discreetly notify a flight deck crew member in an event of a suspicious activity or security breaches in a cabin;

- (c) a device for opening each door which separates a passenger compartment from other compartments that has emergency exit provisions and the device for opening must be readily accessible;
 - (d) if it is necessary to pass through a doorway or curtain separating a passenger cabin from other areas to reach any required emergency exit from each passenger seat, a device to secure the door or curtain in an open position;
 - (e) a placard on each internal door or adjacent to a curtain which provides access to an emergency exit, to indicate that a door or curtain must be secured open during take-off, taxi and landing;
 - (f) a device for any flight crew member to unlock any door which is normally accessible to passengers, and which can be locked by passengers; and
 - (g) in the case of an aeroplane of maximum take-off weight in excess of 45 000 kilogrammes or with a passenger seating configuration of more than 60, a compartment door that –
 - (i) is designed to resist penetration by small arms fire and grenade shrapnel;
 - (ii) is designed to resist forcible intrusions by unauthorised person;
 - (iii) is capable of being locked and unlocked from either pilot's station; and
 - (iv) has means for monitoring from a flight deck the entire door area outside a flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.
- (2) In a case of an aeroplane which is equipped with a flight crew compartment door as stipulated in subregulation (1), a pilot-in-command must ensure that –
- (a) the flight crew compartment door is closed and locked from the time all external doors are closed following embarkation until any the door is opened for disembarkation, except when necessary to permit access and egress of an authorised person; and
 - (b) the aeroplane has equipment for monitoring from either pilot's station, the entire door area outside flight crew compartment and able to identify a person requesting entry and to detect suspicious behaviour or potential threat.

First aid, emergency medical and universal precaution kits

121.05.14 (1) An operator may not operate an aircraft unless the aircraft is equipped with an appropriate first aid kit as provided for in Document NAM-CATS-OPS 121 that is accessible to the crew or passengers.

(2) An operator of an aeroplane with a maximum approved passenger seating configuration of more than 10 seats, may not operate the aeroplane unless the aeroplane is equipped with the appropriate emergency medical kit as provided for in Document NAM-CATS-OPS 121, if any point on the planned route is more than 120 minutes flying time, at normal cruising speed, from an aerodrome at which qualified medical assistance is available.

(3) The medication contained in the emergency medical kit must only be dispensed by qualified doctor, nurse or similarly qualified personnel acting under the authority of the pilot-in-command of the aeroplane.

(4) The emergency medical kit must be dust and moisture proof and must be carried in an appropriate secured location.

(5) Personnel authorised by the operator must carry out periodical inspections of all emergency medical kits to ensure that, as far as is practicable, the contents of the emergency medical kits are in a condition necessary for their intended use.

(6) The supplies in the emergency medical kit must be replenished at regular intervals in accordance with instructions contained on their labels or as circumstances require.

(7) An operator of an aircraft must ensure the universal precaution kits specified in Document NAM-CATS-OPS 121 are carried.

Means for emergency evacuation

121.05.15 (1) An operator may not operate any aeroplane with passenger emergency exit sill heights –

- (a) which are more than 1,83 metres above the ground with the aeroplane on the ground and the landing gear extended; or
- (b) which will be more than 1,83 metres above the ground after the collapse of, or failure to extend one or more legs of the landing gear and for which a type certificate was first applied for on or after 1 March 1998,

unless the aeroplane has equipment or devices available at each exit to enable passengers and flight crew members to reach the ground safely in an emergency.

(2) The equipment or devices referred to in subregulation (1) need not be provided at overwing exits if the designated place on the aeroplane structure at which the escape route terminates, is less than 1,83 metres from the ground with the aeroplane on the ground, the landing gear extended and the flaps in the take-off or landing position, whichever flap position is higher from the ground.

(3) In an aeroplane required to have a separate emergency exit for the flight deck crew and for which –

- (a) the lowest point of the emergency exit is more than 1,83 metres above the ground with the landing gear extended;
- (b) a type certificate was first applied for on or after 1 March 1998 and for which the lowest point of the emergency exit will be more than 1,83 metres above the ground after the collapse of, or failure to extend one or more legs of the landing gear,

there must be a device to assist the flight deck crew members in reaching the ground safely in an emergency.

Airborne collision avoidance system

121.05.16 (1) An operator or pilot-in-command of a turbine-engine aeroplane may not operate an aeroplane unless the aeroplane is equipped with a serviceable airborne collision avoidance system meeting ACAS II specifications, as provided for in Document NAM-CATS-OPS 91.

- (2) Despite the provisions of subregulation (1), an aeroplane may be flown –

- (a) for the purpose of moving the aeroplane to a place to have an approved but unserviceable airborne collision avoidance system that is fitted to the aeroplane repaired, removed, substituted or overhauled; or
- (b) if the aeroplane is fitted with an approved airborne collision avoidance system that is unserviceable at the beginning of the flight –
 - (i) for aeroplanes with an approved minimum equipment list, the aeroplane is operated in accordance with that minimum equipment list; or
 - (ii) for aeroplanes without an approved minimum equipment list –
 - (aa) if not more than 10 days have passed since the airborne collision avoidance system became unserviceable, excluding the day of discovery, or for the shorter duration as provided for by the authority responsible for a particular airspace; or
 - (bb) if the traffic advisories and resolution advisories are inoperative on the non-flying pilot side, the traffic advisories and resolution advisories elements and audio functions are operative on the flying pilot side, and on intercontinental flights the traffic advisories and resolution advisories functions are visible to the non-flying pilot.

(3) The pilot-in-command of an aeroplane that is fitted with a serviceable airborne collision avoidance system must take all reasonable steps to ensure that the system is activated at all times during flight and that its use is consistent with the conditions specified for the area of operation.

Passenger cabin signs and placards

121.05.17 (1) An operator must ensure the following information is conveyed to the passengers by means of signs or placards suitably conspicuous that will ensure each passenger on board the aeroplane is aware –

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

Flight recorders

121.05.18 (1) An operator must equip the aeroplanes specified in Document NAM-CATS-OPS 121 with the flight recorders as provided in that document.

(2) Each flight recorder installed in an aeroplane must be located and installed in a manner that maximum practicable protection is provided, in order that, in the event of an accident or incident, the recorded data may be recovered in a preserved and intelligible state and flight recorders must meet the crashworthiness and fire protection specifications in Document NAM-CATS-OPS 121.

(3) Flight recorders must be deactivated upon completion of flight time following an accident or incident and the flight recorders must not be reactivated before their disposition to the accident or incident investigation team.

(4) An operator must ensure, to the extent possible, in the event the aeroplane becomes involved in an accident or incident, the preservation of all related flight recorder records and, if necessary, the associated flight recorders and their retention in safe custody pending their disposition as determined in accordance with regulations related to aircraft accident and incident investigations.

(5) The flight recorder may not be switched off during flight time.

(6) An operator may not allow use of recordings or transcripts of cockpit voice recorder, cockpit Audio Recording System, Class A airborne image recorder, and Class A airborne image recording system for purposes other than investigation of an accident or incident in regulations related to aircraft accident and incident investigations, except where the recordings or transcripts are –

- (a) related to a safety event identified in the context of a safety management system referred to in Subpart 1 of Part 140;
- (b) restricted to the relevant portions of a de-identified transcript of the recording, and are subject to the protections accorded by Part 140;
- (c) sought for use in criminal proceedings not involving an accident or incident investigation, and are subject to protections accorded by Part 140; or
- (d) used for inspections of flight recorder systems as provided in this Part and associated Document NAM-CATS-OPS 121.

(7) An operator may not allow the use of recordings or transcripts of flight data recorders, aircraft data recording system, Class B and Class C airborne image recorders, and airborne image recording systems for purposes other than investigation of an accident or incident in terms of regulations related to aircraft accident and incident investigations, except where recordings or transcripts are subject to protections accorded by Part 140 and are –

- (a) used by an operator for airworthiness or maintenance purposes;
- (b) used by an operator in the operation of a flight data analysis program required in this Part;
- (c) sought for use in proceedings not related to an event involving an accident or incident investigation;
- (d) de-identified; or
- (e) disclosed under secure procedures.

(8) Flight recorders must be checked daily and on an annual basis as specified in Document NAM-CATS-OPS 121.

Flight data recorders

121.05.19 (1) An operator must ensure that any aeroplane operated is equipped with the flight data recorder specified in Document NAM-CATS-OPS 121.

(2) An operator must ensure that the flight data recorder required by this Subpart complies with the specifications as provided for in Document NAM-CATS-OPS 121.

(3) Each flight data recorder installed in an aeroplane must be located in a manner that ensures that maximum practicable protection is provided, in order that, in the event of an accident or incident, the recorded data may be recovered in a preserved and intelligible state.

(4) The parameters of the flight data recorder must be determined to be within the ranges, accuracies and recording intervals as provided for in Document NAM-CATS-OPS 121 and, where required by subregulation (1), must comply with the requirements of-

(a) a Type I/IA flight data recorder capable of recording the parameters that accurately determine the aeroplane flight path, speed, attitude, engine power, configuration and operation; or

(b) a Type II/IIA flight data recorder capable of recording the parameters that accurately determine the aeroplane flight path, speed, attitude, engine power and configuration of lift and drag devices.

(5) An operator may not operate an aeroplane equipped with a flight data recorder using –

(a) metal foil;

(b) photographic film technology; or

(c) a magnetic tape.

(6) The flight data recorder required by subregulation (1) must be capable of retaining the data recorded during at least the last 25 hours of its operation except for the Type IIA flight data recorder, which must be capable of retaining the information recorded during at least the last 30 minutes of its operation.

(7) The data obtained from a flight data recorder must be obtained from aeroplane sources which enable accurate correlation with information displayed to the flight crew.

(8) The flight data recorder must start automatically to record the data prior to the aeroplane being capable of moving under its own power and must stop automatically after the aeroplane is incapable of moving under its own power.

(9) An aeroplane may commence a flight with the flight data recorder inoperative but –

(a) for aeroplanes with an approved minimum equipment list, the aeroplane must be operated in accordance with that minimum equipment list and the minimum equipment list incorporates the provisions of paragraph (b); or

(b) for aeroplanes without an approved minimum equipment list –

(i) the aeroplane must not depart from an aerodrome where repairs or replacements to the flight data recorder can be made;

(ii) the aeroplane does not exceed six further consecutive flights with the flight data recorder unserviceable;

(iii) not more than 48 hours have elapsed since the flight data recorder became unserviceable; and

- (iv) the flight data recorder is not a cockpit voice recorder combined with the flight data recorder and the cockpit voice recorder is serviceable and functioning in accordance with the requirements of regulation 121.05.20.

Cockpit voice recorders

121.05.20 (1) An operator must ensure each aeroplane operated under this Part is equipped with a cockpit voice recorder as specified in Document NAM-CATS-OPS 121.

(2) An operator must ensure that the cockpit voice recorder required by this Subpart complies with the specifications set out in Document NAM-CATS-OPS 121.

(3) The cockpit voice recorder must record, with reference to a time scale-

- (a) voice communications transmitted from or received on the flight deck or in the cockpit by radio;
- (b) the aural environment of the flight deck or cockpit, including without interruption, the audio signals received from each microphone in use;
- (c) voice communications of flight crew members on the flight deck or in the cockpit using the interphone system of the aeroplane, if installed;
- (d) voice or audio signals identifying navigation or approach aids introduced into a headset or speaker; and
- (e) voice communications of flight crew members on the flight deck or crew members in the cockpit using the public address system of the aeroplane, if installed.

(4) The cockpit voice recorder must –

- (a) be capable of retaining information recorded during at least the period of time specified in Document NAM-CATS-OPS 121;
- (b) start automatically to record when the aeroplane is moving under its own power and continue to record, until the termination of the flight when the aeroplane is no longer capable of moving under its own power; and
- (c) if possible, start to record the cockpit checks prior to engine start at the beginning of the flight, until the cockpit checks immediately following engine shutdown at the end of the flight.

(5) The cockpit voice recorder may be combined with a flight data recorder referred to in regulation 121.05.19.

(6) A person may not operate an aeroplane equipped with a cockpit voice recorder or cockpit audio recording system using magnetic tape or wire.

(7) An aeroplane may commence a flight with the cockpit voice recorder inoperative but –

- (a) for aeroplanes with an approved minimum equipment list, the aeroplane must be operated in accordance with that minimum equipment list and the minimum equipment list must incorporate the provisions of paragraph (b); or
- (b) for aeroplanes without an approved minimum equipment list –

- (i) the aeroplane must not take-off from an aerodrome where repairs or replacements to the cockpit voice recorder can be made;
- (ii) the aeroplane must not exceed six further consecutive flights with the cockpit voice recorder unserviceable;
- (iii) not more than 48 hours have elapsed since the cockpit voice recorder became unserviceable; and
- (iv) any flight data recorder required to be carried is operative, unless the flight data recorder is combined with a cockpit voice recorder.

Data link recorders

121.05.21 (1) All aeroplanes for which the individual certificate of airworthiness was first issued after 1 January 2016, which utilise any of the data link communications applications listed in Document NAM-CATS-OPS 121 and are required to carry a cockpit voice recorder must record on a flight recorder, all data link communications messages.

(2) All aeroplanes which are modified on or after 1 January 2016 to install and utilise any of the data link communications applications listed in Document NAM-CATS-OPS 121 and are required to carry a cockpit voice recorder must record on a flight recorder the data link communications messages.

(3) Sufficient information to derive the content of the data link communications message and, whenever practical, the time the message was displayed to or generated by the crew, must be recorded.

Lifesaving equipment during flight over open water

121.05.22 (1) An operator may not operate an aeroplane over water at a distance of more than 50 nautical miles from shore, in any operation described in subregulation (2) unless there is carried on board one life jacket or equivalent individual flotation device for each person on board, stowed in a position easily accessible from each seat or berth occupied by the person.

- (2) The equipment specified in subregulation (1) applies to –
 - (a) aeroplanes having two power-units, where in the event of the critical power-unit becoming inoperative at the most critical point along the route, the aeroplane is not capable of maintaining the minimum safe flight altitude to the planned destination or a suitable alternate aerodrome where a safe landing can be made;
 - (b) aeroplanes having three or more power-units, where in the event of two power-units becoming inoperative at the most critical point along the route, the aeroplane is not capable of maintaining the minimum safe flight altitude to the planned destination or a suitable alternate aerodrome where a safe landing can be made;
 - (c) when taking off or landing at an aerodrome where the aeroplane flight path is over water and in the opinion of the Executive Director, should any mishap occur, there would be a likelihood of the aeroplane ditching into the water.

Equipment requirements for aeroplane on long range over water flight

121.05.23 (1) An aeroplane used on a route where it may be flown over water must be installed with life-saving equipment under the following circumstances:

- (a) if the aircraft may be required to operate at a distance corresponding to at least 120 minutes at cruising speed or 400 nautical miles, whichever is the lesser, away from land suitable for making an emergency landing; and
 - (b) in the case of a twin-engine aircraft with one engine inoperative or a 3 or more-engine aircraft with two engines inoperative, if it may be required to operate at a distance corresponding to at least 30 minutes or 100 nautical miles, whichever is lesser, for emergency landing.
- (2) Life-saving equipment referred to in subregulation (1) must include –
- (a) life-saving rafts in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in an emergency, and must include means of sustaining life as is appropriate to the flight to be undertaken;
 - (b) equipment for making pyrotechnical distress signals as provided for in Document NAM-CATS-OPS 91; and
 - (c) for an aeroplane of a maximum certificated take-off weight of over 27 000 kilogrammes, a securely attached underwater locating device operating at a frequency of 8.8 kilohertz which has the capability to operate for a minimum of 30 days.
- (3) An underwater locating device referred to in subregulation (2)(c) must not be installed in wings or empennage of an aeroplane.
- (4) A life jacket or equivalent individual flotation device provided in an aeroplane must be equipped with a means of electric illumination for purpose of facilitating the location of persons.
- (5) Life raft, survival radio equipment, and information requirements for extended over water flights must be as provided for in Document NAM-CATS-OPS 91.

Cabin attendant seats

121.05.24 (1) Aeroplanes must be equipped with seats for cabin crew members which must be forward or rearward facing, within 15° of the longitudinal axis of the aeroplane and located near floor-level emergency exits, where possible.

(2) Each cabin crew member required to satisfy the emergency evacuation criteria must have a seat equipped with a safety harness but a safety belt with one diagonal shoulder strap is permitted if the fitting of a safety harness is not reasonably practical.

Emergency locator transmitter

121.05.25 (1) An operator may not operate an aeroplane under this Part unless the aeroplane is equipped with –

- (a) at least one automatic emergency locator transmitter or two emergency locator transmitters of any type as provided for in Document NAM-CATS-OPS 91;
- (b) where the aeroplane is of a type for which the individual certificate of airworthiness was first issued after 1 July 2008 –
 - (i) at least two emergency locator transmitters, one of which must be automatic; or

- (ii) at least one emergency locator transmitter of any type as provided for in Document NAM-CATS-OPS 91, but the aeroplane must have the capability to autonomously transmit information regarding its position at least once every minute when in distress as provided for in Document NAM-CATS-OPS 121.
- (2) Emergency locator transmitter equipment carried in terms of subregulation (1) must operate and be installed as provided for in Document NAM-CATS-OPS 91.
- (3) Emergency locator transmitter required to be fitted in terms of this regulation, must be capable of transmitting on the frequencies 121,5 megahertz and 406 megahertz simultaneously.
- (4) Despite subregulations (1) and (2), an aeroplane may be operated without a serviceable emergency locator transmitter where –
- (a) it is operated in accordance with a minimum equipment list approved by the Executive Director; or
 - (b) where a minimum equipment list has not been approved by the Executive Director in respect of the aeroplane, the operator –
 - (i) repairs or removes the emergency locator transmitter at the first aerodrome at which repairs or removal can be accomplished;
 - (ii) on removal of the emergency locator transmitter from the aeroplane, sends the emergency locator transmitter to a maintenance facility;
 - (iii) displays on a readily visible placard within the aeroplane cockpit, for the period of removal of the emergency locator transmitter from the aeroplane, a notice stating that the emergency locator transmitter has been removed and setting out the date of removal; and
 - (iv) installs a serviceable emergency locator transmitter within five days after the date of removal.

Microphones

121.05.26 All flight crew members required to be on flight deck duty must communicate through boom or throat microphones below the transition level or altitude.

Fire extinguisher

121.05.27 (1) An agent used in a built-in fire extinguisher for a lavatory disposal receptacle for towels, paper or waste in an aeroplane for which the individual certificate of airworthiness was first issued on or after 31 December 2011 and an extinguishing agent used in a portable fire extinguisher in an aeroplane for which the individual certificate of airworthiness is first issued on or after 31 December 2018 must –

- (a) meet the applicable minimum performance requirements as provided for in Document NAM-CATS-OPS 121; and
 - (b) not be of a type mentioned in Document NAM-CATS-OPS 121.
- (2) The requirements regarding the extinguishing agents to be used in fire extinguishers is specified in Document NAM-CATS-OPS 121.

Turbo-jet aeroplanes – forward-looking wind shear warning system

121.05.28 (1) A turbo-jet aeroplane of a maximum certificated take-off mass in excess of 5 700 kilogrammes or authorised to carry more than nine passengers should be equipped with a forward-looking wind shear warning system.

(2) A forward-looking wind shear warning system referred to in subregulation (1) must be capable of providing a pilot with –

- (a) a timely aural and visual warning of wind shear ahead of an aircraft;
- (b) information on whether to execute a missed approach, go-around, or an escape manoeuvre, if necessary;
- (c) an indication on when limits on automatic landing equipment are being approached, when the equipment is in use.

Turbine aeroplane – runway overrun awareness and alerting system

121.05.29 All turbine-engine aeroplanes of a maximum certificated take-off mass in excess of 5 700 kg, for which the individual certificate of airworthiness is first issued on or after 1 January 2026, must be equipped with a runway overrun awareness and alerting system.

**SUBPART 6
AIR OPERATOR CERTIFICATE****Requirements to hold air operator certificate**

121.06.1 (1) An operator may not operate an aeroplane in terms of this Part unless the operator is the holder of and complies with the conditions of a valid air operator certificate including the operations specifications attached to that certificate and an air services licence issued in terms of the Air Services Act.

(2) The holder of an air operator certificate must not wet lease in more than 50 percent of its entire fleet nor more than 50 percent of the aeroplane type in the fleet having the greatest maximum certificated take-off mass.

(3) The operations specifications of an air operator certificate must contain a record of at least the type, model or series, and registration of each aeroplane approved for use by an operator.

Application for issue or amendment of air operator certificate and operations specifications

121.06.2 (1) An application for the issue or amendment of an air operator certificate or operations specifications must be made to the Executive Director in the form and manner specified in Document NAM-CATS-OPS 121 and must be accompanied by the applicable fee specified in Part 187.

- (2) The applicant must demonstrate in the application that the applicant –
 - (a) has adequate equipment, facilities and personnel to operate the proposed commercial air transport operation; and
 - (b) is able to conduct the commercial air transport service in a safe and proper manner and in full compliance with all applicable rules and regulations.

(3) The submission of an application under this Subpart does not place any obligation upon the Executive Director to issue an air operator certificate or operations specifications until he or she has been given reasonable time to review the application and the application has been assessed in terms of regulation 121.06.3.

(4) The holder of an air operator certificate may add to its air operator certificate an aeroplane registered on another air operator certificate but –

- (a) the aeroplane may not be registered on more than three air operator certificates;
- (b) the aeroplane must be maintained by only one aircraft maintenance organisation;
- (c) the manual of procedures or maintenance control manual, as applicable, for all operators and the operations specifications for each operator, must specify the aircraft maintenance organisation responsible for the maintenance of each shared aeroplane, by aeroplane registration number;
- (d) the aeroplane flight folio used must be the same for all operators, such that there is but one continuous record of the aeroplane's activities, and the flight crew members are trained in the procedures for completion of the flight folio;
- (e) there must be one method with respect to the entry, reporting and rectification of defect procedures and the flight crew members must be trained in those procedures;
- (f) the flight crew members must use the minimum equipment list approved for the aeroplane and must be trained in the minimum equipment list procedures for that particular aeroplane, if applicable, and the operations manual must specify the procedures the flight crew are to follow in the event contact with maintenance personnel is needed; and
- (g) the flight crew members must receive ground and flight training covering on any differences between the models operated by the operator and that are being added to the air operator certificate, including at least –
 - (i) safety equipment contained on board;
 - (ii) ancillary equipment inclusive of navigational aids, auto flight system, flight director or flight management system, airborne collision avoidance system, terrain awareness and warning system and weather radar; and
 - (iii) systems differences, engine or airframe limitations, performance considerations and operating characteristics, and the results of the training recorded on the flight crew member's training file.

(5) The personnel referred to in subregulation (2)(a) must be comprised of the following positions, as applicable to the type of operation proposed, the incumbents of which must be approved by the Executive Director –

- (a) chief executive officer;
- (b) person responsible for flight operations;
- (c) person responsible for aircraft;
- (d) chief pilot;

- (e) cabin crew manager;
- (f) air safety officer;
- (g) quality manager; and
- (h) security manager.

(6) The nominated post-holders required by subregulation (5), must meet the qualifications and are responsible for the functions specified in Document NAM-CATS-OPS 121 and must be employed on a full time basis and for the purposes of this subregulation “full time employment” means having spent sufficient time in the workplace to accomplish all duties within his or her area of responsibility.

(7) Any person who held any of the positions listed in subregulation (5) prior to the commencement of these regulations is considered to meet the qualifications required by Document NAM-CATS-OPS 121 but –

- (a) for a nominated post-holder, the person must be satisfactory to the Executive Director;
- (b) for an incumbent, that incumbent must have discharged his or her responsibilities to the satisfaction of the Executive Director; and
- (c) for a nominated or incumbent post-holder, the person must meet the qualifications specified in Document NAM-CATS-OPS 121 within six months from the commencement of these regulations.

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

(9) A person who has been approved for one or more management positions in terms of subregulation (5)(a) to (d) may not hold a management position at another operator.

(10) Despite any provision to the contrary in these regulations, the Executive Director may withdraw any approval where any manager no longer meets the qualifications required for that position or fails to discharge the responsibilities of that position.

(11) The Executive Director may amend an air operator certificate if –

- (a) he or she determines that safety in commercial air transport and the public interest requires the amendment; or
- (b) the holder of the air operator certificate applies for an amendment, and the Executive Director determines that safety in commercial air transport and the public interest requires the amendment.

(12) If the Executive Director stipulates in writing that an emergency exists requiring immediate amendment in the public interest with respect to safety in commercial air transportation, the amendment becomes effective on the date the holder of an air operator certificate receives the notice.

(13) A holder of an air operator certificate may make representations to the Executive Director against the amendment contemplated in regulation (11)(a) or (12), but must continue to operate in accordance with the amendment, unless it is subsequently varied or withdrawn.

(14) Amendments approved by the Executive Director, other than emergency amendments referred to in subregulation (12), become effective 30 days after notice to the holder of an air operator certificate, unless the holder of the air operator certificate makes representations against the proposal as contemplated in subregulation (13) prior to the effective date.

(15) Amendments proposed by the holder of an air operator certificate must be made at least 30 days prior to the intended date of any operation under the proposed amendment.

(16) A person may not perform a commercial air transport operation for which an air operator certificate amendment is required, unless that person has received notice of the approval from the Executive Director.

Application, consideration of and issue of air operator certificate or operations specifications

121.06.3 (1) In considering an application referred to in regulation 121.06.2 the Executive Director may conduct any investigation he or she considers necessary to determine the applicant's ability to meet the requirements specified in this Part.

(2) An application must be granted and the appropriate aviation document issued, containing the conditions as the Executive Director determines, if the Executive Director is satisfied that –

- (a) the applicant will comply with the provisions of its operator certificate and operations specifications; and
- (b) the applicant will not operate the air service concerned contrary to any provision of the Act, or the Air Services Act.

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

(4) An air operator certificate and associated operations specifications must be issued in a form specified, and contain at least the information specified, in Document NAM-CATS-OPS 121.

Validity and status of air operator certificate

135.06.4 (1) Unless otherwise specified by the Executive Director, an air operator certificate remains valid and in force for an indefinite period but –

- (a) the operator must submit, 30 days prior to the anniversary date of initial issue, the appropriate application form and annual fee as provided for in Part 187;
- (b) the operator must successfully complete the audits and inspections carried out by the Executive Director, including the satisfactory resolution of any findings reported to the operator by the Executive Director;
- (c) the air operator certificate must not otherwise have been suspended, cancelled or voluntarily surrendered to the Executive Director; and
- (d) the operator must continue to meet the requirements for the issue of an air operator certificate.

(2) An air operator certificate is not transferable to any other entity.

(3) Where an operator is notified by the Executive Director that its air operator certificate has been suspended or cancelled, the operator must return the air operator certificate to the Executive Director within seven days of the notification.

(4) A contracting state to the Chicago Convention must recognise as valid an air operator certificate issued by another contracting state to that Convention, but the requirements under which the certificate was issued must at least be equal to the applicable standards specified in this Part.

Safety and security inspections and audits

121.06.5 (1) An applicant for the issue of an air operator certificate must permit an authorised officer, inspector or authorised person to carry out the safety and security audit or inspection which may be necessary for consideration of an application made in terms of this Part.

(2) A non-compliance or finding made as a result of an inspection or audit conducted in terms of this Part must be categorised as provided for in Document NAM-CATS-OPS 121.

Administrative duties of air operator certificate holder

121.06.6 (1) The holder of an air operator certificate must keep the air operator certificate in a safe place and produce the air operator certificate to an authorised officer or inspector for inspection if so requested by the officer or inspector.

(2) An operator must notify the Executive Director of any intended change in the personnel occupying a management position specified in regulation 121.06.2(5) and must submit the names and qualifications of a replacement person for the Executive Director's approval before effecting the change but in the case of a sudden departure of an incumbent, an operator must notify the Executive Director of its plan to ensure safety of operations while replacing the person.

(3) An operator must notify the Executive Director in the event of any change in the ownership of the operator, including the names and contact details of the new owners.

Register of air operator certificates

121.06.7 (1) The Executive Director must maintain a register of all air operator certificates issued in terms of these regulations.

(2) The register must contain the following particulars:

- (a) the full name and, if any, the business name of the holder of the air operator certificate;
- (b) the postal address of the holder of the air operator certificate;
- (c) the number of the air operator certificate issued to the holder;
- (d) particulars of the type of air service for which the air operator certificate was issued, including a list of operations specification issued;
- (e) particulars of the category of aeroplane for which the air operator certificate was issued; and
- (f) the date on which the air operator certificate was issued.

(3) The particulars referred to in subregulation (2) must be recorded in the register within 30 days from the date on which the air operator certificate is issued.

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

(5) A copy of the register must be furnished, on payment of the applicable fee specified in Part 187, to any person who requests the copy.

Operator notification

121.06.8 If an operator has an operating base in a State other than Namibia, the operator must notify the Executive Director as well as the State in which the operating base is located.

Demonstration flights for initial application

121.06.9 (1) A person may not operate an aircraft type in commercial air transport unless he or she first conducts satisfactory demonstration flights as required by the Executive Director in that aircraft type and as specified in Document NAM-CATS-OPS 121.

(2) A person may not operate an aircraft in a specifically designated area, or use a specialised navigation system, or use a specific approval unless he or she conducts a satisfactory demonstration flight as required by the Executive Director and as specified in Document NAM-CATS-OPS 121.

(3) The demonstration flights required by subregulations (1) and (2) must be conducted in accordance with the regulations applicable to the type of operation and aircraft type used.

(4) The Executive Director may authorise deviations from this regulation if he or she finds that special circumstances make full compliance with the provisions of this regulation unnecessary.

SUBPART 7 FOREIGN AIR OPERATOR PERMIT

Requirement for foreign air operator permit

121.07.1 (1) A foreign operator may not operate a foreign registered aeroplane engaged in international commercial air transport operations to, from or within Namibia, except under the authority of, and in accordance with the conditions of, a foreign air operator permit issued under this Subpart.

(2) Transportation of passengers, cargo or mail within Namibia by a foreign operator may only be undertaken as provided for in NAM-CATS-OPS 121.

Application for foreign air operator permit or amendment of foreign air operator permit

121.07.2 (1) An application for the issue of a foreign air operator permit must be –

- (a) made to the Executive Director in the appropriate form provided for in Document NAM-CATS-OPS 121; and
- (b) accompanied by –
 - (i) a declaration of competency issued in respect of each aeroplane concerned;
 - (ii) a copy of the valid air operator certificate or equivalent authorisation held by the applicant, which pertains to the operation covered by the application;

- (iii) the applicable fee specified in Part 187; and
- (iv) a statement certifying the availability of insurance in respect of the obligations and liabilities of the applicant which may arise from the operation covered by the application.

(2) Subject to the provisions of subregulation (5), an application for the issue of a foreign air operator permit must be submitted to the Executive Director at least 90 days before the date of commencement of the intended operation.

- (3) If the holder of a foreign air operator permit wishes to amend –
 - (a) its name or principal place of business;
 - (b) the description of the type of operation;
 - (c) the type of aeroplane;
 - (d) the nationality and registration marks of the aeroplanes;
 - (e) the area of operation; or
 - (f) any condition,

specified on the permit, the operator must apply to the Executive Director for the amendment.

- (4) An application for the amendment of a foreign air operator permit must be –
 - (a) made in the appropriate form set out in Document NAM-CATS-OPS 121; and
 - (b) accompanied by –
 - (i) a declaration of competency issued in respect of each aeroplane concerned;
 - (ii) a copy of the valid air operator certificate or equivalent authorisation held by the applicant, which pertains to the operation covered by the application;
 - (iii) the applicable fee specified in Part 187; and
 - (iv) a statement certifying the availability of insurance in respect of the obligations and liabilities of the applicant which may arise from the operation covered by the application.

(5) Subject to the provisions of subregulation (5), an application for the amendment of a foreign air operator permit must be submitted to the Executive Director at least 30 days before the date of commencement of the intended amended operation.

(6) The Executive Director may condone a shorter period within which an application referred to in subregulation (1) or (3), as the case may be, is received, if the Executive Director is satisfied that the object of the operation or amended operation will be defeated if the application is not assessed within a shorter period.

Assessment of application and issue of permit

121.07.3 (1) In considering the application for the issue of a foreign air operator permit, or an amendment of that permit, the Executive Director may conduct the investigation which he or she considers necessary.

(2) The application must be granted and the permit issued if the Executive Director is satisfied that the applicant –

- (a) has the financial capability of conducting a safe operation within Namibia; and
- (b) will not conduct the operation concerned contrary to any provision of the Act or the Air Services Act.

(3) For the purpose of subregulation (2), if the Executive Director is not satisfied, he or she must –

- (a) notify the applicant and state in the notification the reasons why he or she is not satisfied; and
- (b) grant the applicant the opportunity to rectify or supplement the defect within the period determined by the Executive Director, after which period the Executive Director must grant or refuse the application concerned.

(4) A foreign air operator permit must be issued in the manner specified in Document NAM-CATS-OPS 121, under the conditions which the Executive Director may determine.

(5) A foreign air operator permit must specify –

- (a) the name, nationality and principal place of business of the operator;
- (b) the date on which the permit was issued and its period of validity;
- (c) a description of the type of operation authorised;
- (d) the type of aeroplane authorised for operation;
- (e) the nationality and registration marks of each aeroplane authorised for operation;
- (f) the authorised area of operation; and
- (g) the conditions of the permit.

Period of validity

121.07.4 (1) A foreign air operator permit is valid –

- (a) for the period determined by the Executive Director, which period must not exceed 12 months, calculated from the date of issue of the permit;
- (b) for the number of flights determined by the Executive Director; or
- (c) for the number of flights, which have to be undertaken within the period, determined by the Executive Director.

(2) Despite subregulation (1), if the holder of a foreign air operator permit applies for its renewal at least 30 days prior to the expiry the permit, the permit remains valid until the holder is notified by the Executive Director of the result of the application for the renewal of the permit.

(3) The permit remains in force until it expires or is suspended by an authorised officer, inspector or authorised person, or cancelled by the Executive Director, in terms of regulation 121.07.9.

(4) The holder of a permit which expires must surrender the permit to the Executive Director.

(5) The holder of a permit which is suspended, must produce the permit upon suspension to the authorised officer, inspector or authorised person concerned for the appropriate endorsement.

(6) The holder of a permit which is cancelled, must, within 30 days from the date on which the permit is cancelled, surrender the permit to the Executive Director.

Transferability

121.07.5 A foreign air operator permit is not transferable.

Duties of holder of permit

121.07.6 (1) The holder of a foreign air operator permit must –

(a) at all times during the operation within Namibia -

(i) comply with –

(aa) the appropriate requirements under this Part; and

(bb) the conditions of the permit;

(ii) hold a valid air operator certificate or equivalent authorisation; and

(b) produce the permit to an authorised officer, inspector or authorised person for inspection, if so requested by the officer, inspector or person.

Renewal of permit

121.07.7 (1) The holder of a foreign air operator permit must at least 30 days immediately preceding the date on which the permit expires, apply for the renewal of the permit.

(2) The provisions of regulations 121.07.2(1) and 121.07.3 must apply with the necessary changes to an application made in terms of this regulation.

Safety inspections and audits

121.07.8 The holder of a foreign air operator permit must permit an authorised officer, inspector or authorised person to carry out safety inspections and audits, including safety inspections and audits of its partners or subcontractors, which may be necessary to determine compliance with the appropriate requirements under in this Part.

Suspension, revocation and variation of air operator certificate and foreign air operator permit

121.07.9 An air operator certificate or a foreign air operator permit may in accordance with regulation 13.01.4 be suspended, revoked or varied if the Executive Director is no longer satisfied that the operator can maintain an adequate organisation to ensure safe operations.

Register of permits

121.07.10 (1) The Executive Director must maintain a register of all foreign air operator permits issued, amended or renewed in terms of the regulations in this Subpart.

(2) The register must contain the following particulars:

- (a) The full name of the holder of the permit;
- (b) the postal address of the holder of the permit;
- (c) the telephone and telefax numbers of the holder of the permit;
- (d) the date on which the permit was issued, amended or renewed;
- (e) the number of the permit issued, amended or renewed;
- (f) the conditions of the permit;
- (g) the nationality of the holder of the permit; and
- (h) the date on which the permit was suspended, if applicable.

(3) The particulars referred to in subregulation (2) must be recorded by the Executive Director in the register within seven days from the date on which the permit was issued, amended, renewed or cancelled, as the case may be.

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

(5) A copy of the register must be furnished by the Executive Director, on payment of the applicable fee specified in Part 187, to any person who requests the copy.

**SUBPART 8
FLIGHT OPERATIONS****DIVISION ONE: GENERAL****Routes and areas of operation and aerodrome facilities**

121.08.1 (1) Aeroplane dispatched over any route or airway in instrument meteorological conditions must be capable of –

- (a) in the case of a twin-engine aeroplane in the event of the failure of the critical engine, maintaining the minimum en-route altitude published or established by the operator for the route or airway;
- (b) in the case of an aeroplane having three or more engines in the event of the failure of any two engines, maintaining the minimum en-route altitude published or established by the operator for the route or airway; and

- (c) in addition to subparagraphs (a) and (b) and for flight in visual meteorological conditions, the aeroplane must be capable of landing at the intended destination or alternate aerodrome in accordance with the provisions of regulations 121.09.8, 121.09.9 and 121.09.10.
- (2) An operator must specify in its operations manual the procedures used to determine the minimum altitudes to be flown in order to meet the obstacle clearance requirements specified in regulation 121.08.23 and, for operations in uncontrolled airspace, the means for ensuring a navigational capability is maintained while operating on any route used therein.
- (3) An operator of an aeroplane must select at least one destination alternate aerodrome for each instrument flight rules flight –
- (a) unless –
- (i) two separate runways, arranged such that the closure of one cannot affect the operations of the other and each with an operational straight-in instrument approach procedure, are available and usable by the flight crew at the destination aerodrome; and
- (ii) the duration of the flight from the departure aerodrome, or from the point of in-flight re-planning, to the destination aerodrome is such that, taking into account all operational information relevant to the flight, for a period of at least one hour before and one hour after the estimated time of arrival, a reasonable certainty exists that the approach and landing may be made under visual meteorological conditions; or
- (b) unless the destination aerodrome is isolated and no suitable alternate aerodrome is available, in which case the provisions of regulation 91.07.7(6)(b) apply.
- (4) An operator of an aeroplane must select at least two destination alternate aerodromes for each instrument flight rules flight when –
- (a) appropriate weather reports or forecasts for a destination aerodrome, or any combination of the reports and forecasts, indicate that during a period commencing one hour before and ending one hour after an estimated time of arrival, the weather conditions will be below the applicable planning minima; or
- (b) meteorological information is not available at a destination aerodrome.
- (5) An operator may not permit, and a pilot-in-command may not operate, a flight that is to be conducted in accordance with instrument flight rules, for which one or more destination alternate aerodromes are required, to be commenced unless the aerodrome meteorological forecast indicates that conditions for a period of at least one hour before until one hour after the estimated time of arrival at the destination alternate aerodrome will meet or exceed those specified in Document NAM-CATS-OPS 121.
- (6) An operator must operate all flights in accordance with the route, aerodrome or other approvals and conditions pertaining to flight operations as are contained in the air operator certificate.
- (7) An operator must ensure that –
- (a) the equipment of the aeroplane intended to be used, complies with the minimum requirements for the planned operation; and

- (b) except as approved by the Executive Director in accordance with Document NAM-CATS-OPS 121, a twin-engine aeroplane is not operated under this Part over a route which contains a point further from an adequate and suitable aerodrome than the distance that can be flown, under standard conditions in still air, in 60 minutes at the one-engine inoperative cruise speed.
- (8) An operator of an aeroplane may not commence a flight unless it has been ascertained by every reasonable means available that the ground facilities and services, including meteorological services and rescue firefighting services are –
- (a) available as required for the safe operation of an aeroplane and the protection of the passengers;
- (b) adequate for the type of operation being conducted; and
- (c) functioning normally for their intended purpose.
- (9) An operator must report without delay to the Authority any observed operational inadequacy of facilities referred to in subregulation (8).
- (10) Information related to the level of rescue and firefighting service protection that is considered acceptable by an operator of an aeroplane must be contained in the operations manual.
- (11) An operator of an aeroplane must, as part of its safety management system referred to in Subpart 1 of Part 140, assess the level of rescue and firefighting service protection available at an aerodrome intended to be specified in the operational flight plan to ensure that an acceptable level of protection is available for an aeroplane intended to be used.

Establishment of procedures

- 121.08.2** (1) An operator must –
- (a) establish for each aeroplane type, procedures and instructions for ground personnel and crew members pertaining to the duties for all types of operations on the ground and in flight;
- (b) establish a checklist system to be used by a flight crew member for all phases of operation under normal, abnormal, and emergency conditions, to ensure that operating procedures contained in its operations manual referred to in regulation 121.04.2 are followed;
- (c) ensure that a flight crew member does not perform any activities during critical phases of a flight other than those required for a safe operation of an aeroplane;
- (d) ensure specific procedures are developed to instruct a pilot with respect to rates of climb and descent in various stages of flight; and
- (e) unless otherwise specified in an air traffic control instruction, specify procedures by which –
- (i) an aeroplane climbing or descending to an assigned altitude or flight level may do so at a rate less than 1 500 feet per minute throughout the last 1 000 feet of climb or descent to an assigned level; and

- (ii) a pilot-in-command is made aware of another aircraft at or approaching an adjacent altitude or flight level.
- (2) The approved checklist system referred to in subregulation (1)(b) must include –
- (a) an easy-to-use checklist for normal phases of flight operations;
 - (b) a quick reference-type checklist dealing with all malfunctions requiring the use of abnormal or emergency procedures;
 - (c) an amplified checklist that ensures all referenced check items are dealt with in accordance with the recommended procedures of the aeroplane manufacturer;
 - (d) an easy to locate and employ system of supplementary checks and procedures, if applicable; and
 - (e) any other check items relating to the use of equipment not installed at the time of aeroplane manufacture or not included in the check system provided for in the approved aeroplane flight manual.
- (3) The pilot-in-command is responsible for ensuring all check procedures, including checklists, are managed in accordance with the procedures specified in the operations manuals of the operator.

Competence of operations personnel

121.08.3 An operator must 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 the duties to the operation as a whole.

Use of air traffic services

121.08.4 An operator must ensure that air traffic services provided for in Part 172 are used for all flights whenever available.

Single-engine aeroplane operations

121.08.5 An operator may not operate a single-engine aeroplane under this Part.

Defect reporting

121.08.6 (1) An operator must establish adequate inspection and reporting procedures to ensure that defective equipment is reported to the pilot-in-command of the aeroplane before take-off and where a defect is observed during flight, the pilot-in-command must ensure that the defect is recorded and reported in the manner established in the operations manual of the operator.

(2) The procedures referred to in subregulation (1) must be extended to include the reporting to the operator of all incidents of exceeding engine or airframe limitations that may occur while the flight crew are embarked on the aeroplane and of defective equipment found on board.

(3) Upon receipt of the reports referred to in subregulation (2), the operator must compile a report and submit the report on a monthly basis to the Executive Director.

Instrument approach and departure procedures

121.08.7 An operator may implement instrument approach and departure procedures, other than instrument approach and departure procedures referred to in regulation 91.07.15 but –

- (a) the instrument approach and departure procedures must be approved by the Executive Director or the appropriate authority of the State in which the aerodrome is located; or
- (b) the appropriate air traffic control clearance must be received from the air traffic service unit.

Environmental protection

121.08.8 (1) An operator must establish operating procedures for noise abatement as provided for in Part 139.

(2) Take-off and climb procedures for noise abatement specified by an operator for any one aeroplane type may vary for different aerodromes.

(3) An operator engaged in international operations must comply with the requirements relating to the monitoring, reporting and verification of annual carbon dioxide emissions as provided for in Part 91.

Reporting of hazardous flight conditions

121.08.9 The pilot-in-command of any aeroplane that encounters flight conditions considered to be hazardous to his or her, or another aeroplane, must in accordance with Part 175 report the conditions to the aeronautical information services of the Authority and where applicable, any appropriate air traffic control, as soon as possible, giving the details as may be pertinent to the safety of other aeroplanes.

Refuelling and defueling with passengers on board

121.08.10 A person may not refuel or defuel any aeroplane when passengers are embarking, disembarking or on board unless the fuelling is carried out in accordance with the procedures specified in Document NAM-CATS-OPS 121 and the procedures are included in the operations manual of the operator.

Reporting acts of unlawful interference

121.08.11 (1) Following an act of unlawful interference, the pilot-in command must –

- (a) where in his opinion the safety of persons on board the aeroplane would not be jeopardized, report the events to the nearest air traffic services authority by the most discrete method possible, by the means devised for the communications; and
- (b) submit, without delay, a report of the act to the Executive Director in a form acceptable to the Executive Director.

Cabin and flight deck signals

121.08.12 (1) An operator must publish in a manner acceptable to the Executive Director a system of signals to be used between the cabin and the flight deck during normal, abnormal, emergency and security operations.

- (2) The signals may be issued in an overt or covert manner.

In-flight simulation of emergencies

121.08.13 A person may not simulate any emergency or abnormal condition during flight that would effectively alter the flight characteristics of the aeroplane or otherwise induce a potentially unsafe safety condition when passengers are on board the aeroplane.

Security of flight crew compartment

121.08.14 (1) An operator must ensure that the doors of all aeroplanes which are equipped with a flight crew compartment door are capable of being locked.

(2) If cabin crew are required or carried, means or procedures must be established by which cabin crew can discreetly notify the flight crew in the event of suspicious activity or security breaches in the cabin.

(3) In all aeroplanes which are equipped with a flight crew compartment door the operator must ensure that –

- (i) the flight crew compartment door is closed and locked from the time all external doors are closed following embarkation until that door is opened for disembarkation, except when necessary to permit access and egress by authorised persons; and
- (ii) means is provided for monitoring from the flight deck the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.

DIVISION TWO: DISPATCH AND FLIGHT RELEASE RULES

Operational control and supervision of flight operations

121.08.15 (1) An operator must establish and maintain an operational control and supervision of flight operations that –

- (a) meets the requirements in Document NAM-CATS-OPS 121; and
- (b) is approved by the Executive Director.

(2) The Executive Director may approve the use of a variation of the operational control systems described in Document NAM-CATS-OPS 121 provided an equivalent level of operational control and supervision of flight operations is demonstrated.

(3) An operator may not dispatch a flight unless a flight release has been issued for the flight and the flight release procedures must meet the requirements specified in Document NAM-CATS-OPS 121 and be acceptable to the Executive Director as appropriate to the type of operation.

(4) Where a flight release has been issued with respect to a flight and not withdrawn prior to the take-off, the pilot-in-command has the final authority as to the commencement, continuation, diversion or termination of that flight.

(5) Where a flight release has been issued with respect to a flight, it must remain in force for the duration of the flight, from the originating point to the final destination, including en-route stops, except where –

- (a) the aeroplane has been delayed or otherwise detained at the originating point or any en-route station stop for a period of more than 4 hours;
- (b) any flight crew member has been changed from the original crew;
- (c) any crew member has exceeded his or her maximum flight duty time, necessitating an extension to the duty period;
- (d) the aeroplane has been involved in an incident or occurrence or has otherwise encountered a malfunction which may have altered the status of the maintenance release;
- (e) due to operational requirements, the aeroplane was forced to divert to an alternate or other aerodrome, not included in the planned itinerary; or
- (f) in the opinion of the pilot-in-command or flight operations officer, if applicable, there has been significant change in the operational weather or other conditions upon which the flight release was issued, thereby rendering it invalid and in the situations the flight release may be withdrawn by either the pilot-in-command or the flight operations officer.

(6) An operator must ensure that the operational control and supervision of flight operations referred to in subregulation (1) includes a means of following the progress of each flight as specified in Document NAM-CATS-OPS 121 and that the communication equipment and facilities required for the flight watch or flight following system used are in place and serviceable during the period of time any of its flights is in progress.

(7) For operations involving co-authority dispatch, the operator must develop a conflict resolution policy that ensures that any disagreement that occurs between the pilot-in-command and a flight operations officer with respect to the conduct of a proposed flight is resolved prior to flight.

(8) The conflict resolution policy specified in subregulation (7) must require a course of action that would provide the greatest margin of safety.

(9) An operator must publish in the operations manual referred to regulation 121.04.2 –

- (a) the details of its operational control and supervision of flight operations referred to in subregulation (1), including the titles and functions of those persons authorised to exercise operational control over a flight;
- (b) the policies and procedures associated with the type or types of operational control and supervision of flight operations it intends to use in preparing for, releasing and monitoring its flights as well as the emergency procedures to be followed; and
- (c) the conflict resolution policy in full detail.

(10) An operator or a designated representative is responsible for operational control.

(11) The responsibility referred to in subregulation (10) may be delegated only to a pilot-in-command, a flight operations officer or a flight dispatcher, if the operator's approved method of control and supervision of flight operations requires the use of a flight operations officer or flight dispatcher personnel.

(12) An operator must establish an aircraft tracking capability to track aeroplanes throughout its area of operations.

Contracted services for operational control system

121.08.16 (1) An operator may use the operational control system of an agent whether domestic or foreign but –

- (a) for the implementation of –
 - (i) a co-authority dispatch system, the agency and operator must establish an equivalent system to that specified in Document NAM-CATS-OPS 121; or
 - (ii) a pilot self-dispatch system, as specified in Document NAM-CATS-OPS 121,

the operator must establish a means to effectively interface with the contracted services; and

- (b) the service agreement must be approved by the Executive Director.

(2) The methods, procedures and policies for effecting operational control using the agency must be described in the operations manual referred to in regulation 121.04.2.

Operational flight plan and flight release

121.08.17 (1) An operator must prepare an operational flight plan for its flights as provided in Document NAM-CATS-OPS 121.

(2) The signatures or alternative means of signifying acceptance of the operational flight plan by the pilot-in-command and flight operations officer, if applicable, as required by Document NAM-CATS-OPS 121, must constitute a flight release and certifies that –

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

(3) The operational flight plan referred to in subregulation (1) must be left with the aerodrome authority or on record in a suitable place at the point of departure.

Familiarity with weather conditions and technical data

121.08.18 (1) A flight operations officer may not release a flight unless he or she is thoroughly familiar with –

- (a) reported and forecast weather conditions on the route to be flown and at all planned destination and alternate aerodromes;
- (b) the navigational requirements for the planned routes and aerodromes; and
- (c) any other technical data relevant to the proposed flight including aerodrome operating minima, aeroplane performance, maintenance status, notice to airmen, bulletins or operational directives issued by the operations manager,

and that nothing in the information indicates there is a threat to the safety of the flight.

Retention of flight operations documents and reports

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

(2) All flight documentation required by this Subpart to be prepared with respect to a flight and which was carried on-board that flight must –

- (a) be returned to the company's main base specified in the air operator certificate; and
- (b) include weather maps and printed information, notice to airmen, cargo and fuel loading sheets and manifests and all paperwork used to record the progress or diversion and irregular or emergency situations of the flight.

Maintenance status

121.08.20 (1) A person may not dispatch or release an aeroplane unless it is airworthy and all known defects have been rectified and appropriately certified by an aeroplane maintenance engineer except where the dispatch of the aeroplane is in accordance with an approved minimum equipment list issued in terms of regulation 121.08.21, a configuration deviation list approved by the State of Manufacture or as otherwise permitted in the aeroplane flight manual.

(2) Under a co-authority dispatch system the pre-flight briefing issued by the flight operations officer must include a full review of the aeroplane maintenance status.

Requirements for minimum equipment lists

121.08.21 (1) Except as provided in subregulations (2) and (5), a person may not conduct a take-off in an aeroplane with instruments or equipment that are not serviceable or that have been removed, where the instruments or equipment are required by –

- (a) the standards of airworthiness that apply to day or night visual flight rules or instrument flight rules flight, as applicable;
- (b) any equipment list published by the aeroplane manufacturer respecting aeroplane equipment that is required for the intended flight;
- (c) an air operator certificate;
- (d) an airworthiness directive; or
- (e) these Regulations.

(2) A person may conduct a take-off in an aeroplane with instruments or equipment that are not serviceable or that have been removed but the aeroplane must be operated in accordance with any conditions or limitations specified in a minimum equipment list, which has been approved by the Executive Director as provided for in Document NAM-CATS-OPS 121 and, in the opinion of the pilot-in-command, aviation safety will not be affected.

(3) An operator must establish a minimum equipment list for each type of aeroplane for which a master minimum equipment list has been approved by a State of Design of the aeroplane but the State of Design must be a contracting state to the Chicago Convention and the manufacturing standards used by that State must at least be equal to the ICAO standards for design.

(4) A person may not operate an aeroplane in accordance with a minimum equipment list unless the minimum equipment list is carried on board the aeroplane.

(5) A person may conduct a take-off in an aeroplane that has instruments or equipment that are not serviceable or that have been removed where the aeroplane is operated in accordance with the conditions of a flight permit that has been issued by the Executive Director or his delegate specifically for that purpose.

(6) A person may not conduct a take-off in an aeroplane for which a minimum equipment list has not been approved and the aeroplane has instruments and equipment, other than the instruments and equipment specified in subregulation (1), that are not serviceable or that have been removed unless –

- (a) where the unserviceable instrument or equipment is not removed from the aeroplane, it is isolated or secured so as not to constitute a hazard to any other aeroplane system or to any person on board the aeroplane;
- (b) the appropriate placards are installed as required by the maintenance control manual; and
- (c) an entry recording the actions referred to in paragraphs (a) and (b) is made in the flight folio, as applicable.

Aerodrome operating minima

121.08.22 (1) An operator must establish aerodrome operating minima in accordance with the provisions of subregulations (2), (3) and (4) in a manner approved by the Executive Director.

(2) An operator must establish aerodrome operating minima for each aerodrome planned to be used, which may not be lower than the values in Document NAM-CATS-OPS 91, except as provided in regulations 121.08.31 and 121.08.32.

(3) An operator must conduct all instrument approaches and departures in accordance with the procedures approved for the operator in its operations specifications.

(4) Where an operator is operating at an aerodrome other than a Namibian aerodrome, the aerodrome operating minima established by the operator may be lower than the minima established by the appropriate authority of the State in which the aerodrome is located but –

- (a) the State in which the aerodrome is located must approve the lower operating minima; and
- (b) the operator must be authorised in its operations specifications to operate to the lower minima.

Minimum flight altitudes

121.08.23 (1) An operator must establish minimum flight altitudes and the methods to determine the 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 of this Part and the minimum flight altitudes referred to in regulation 91.07.2.

(2) An operator must specify the method by which it intends to determine minimum flight altitudes for operations conducted over routes for which minimum flight altitudes have not been established and must include this method in its operations manual.

(3) The method for establishing the minimum flight altitudes referred to in subregulation (2) must be approved by the Executive Director.

(4) An operator must take into account the following factors when establishing minimum flight altitudes –

- (a) the accuracy with which the position of the aeroplane can 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;
- (e) possible inaccuracies in aeronautical charts, and
- (f) airspace restrictions.

(5) In complying with the provisions of subregulation (2), the operator must give due consideration to –

- (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.

Ditching

121.08.24 An operator may not operate an aeroplane with an approved passenger seating configuration of more than 30 seats over routes on which the aeroplane may be over water and at more than a distance corresponding to 120 minutes at cruising speed or 400 nautical miles, whichever is the lesser, away from land suitable for making an emergency landing, unless the aeroplane has been certified as having adequate characteristics for ditching or has been approved as adequate for ditching.

Fuel policy

121.08.25 (1) An operator must establish a fuel policy that meets the requirements in Document NAM-CATS-OPS 121 for the purpose of flight planning and inflight re-planning to ensure that every flight carries sufficient fuel for the planned operation and reserve fuel to cover deviations from the planned operation.

- (2) An operator must ensure that the planning of a flight is based upon –
- (a) procedures, tables or graphs which are contained in or derived from current aeroplane-specific data or the operations manual referred to in regulation 121.04.2;
 - (b) the operating conditions under which the flight is to be conducted, including –
 - (i) realistic aeroplane fuel consumption data;
 - (ii) anticipated masses;

- (iii) expected meteorological conditions;
- (iv) the effects of loss of facilities or services as identified in the notice to airmen; and
- (v) air traffic service procedures, restrictions and anticipated delays; and
- (vi) the effect of deferred maintenance items or configuration deviations.

(3) An operator must establish policies and procedures with respect to fuel management and publish the policies and procedures in the operations manual referred to in regulation 121.04.2.

(4) The policies and procedures required by subregulation (3) must, as a minimum, include the requirement that –

- (a) in-flight fuel checks are to be performed at least hourly by or on behalf of the pilot-in-command to ensure that the amount of usable fuel remaining in flight is not less than the fuel required to proceed to a suitable aerodrome where a safe landing can be made with the planned final reserve fuel remaining; and
- (b) the pilot-in-command must declare a situation of urgency when the calculated usable fuel predicted to be available upon landing at the nearest suitable aerodrome where a safe landing can be made is less than the planned final reserve fuel.

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

Fuel supply and record keeping

121.08.26 (1) An operator must establish a procedure to ensure that in-flight fuel checks and fuel management are carried out.

(2) An operator must keep a record of all fuel uplifts, including quantities and types.

(3) Record-keeping procedures must be published in the approved documents of the operator and are considered flight documents for record retention as provided for in regulation 121.08.19.

(4) Fuel and oil records must be retained by the operator for a period of 90 days.

Operation of aircraft in icing conditions

121.08.27 (1) A person may not conduct a take-off or continue a flight in an aeroplane when icing conditions are reported to exist or are forecast to be encountered along the route to be flown unless the aeroplane is equipped to be operated in the conditions and the aircraft type certificate authorises flight in the conditions.

(2) A person may not initiate or continue a flight in icing conditions where in the opinion of the pilot-in-command, the conditions experienced may adversely affect the safety of the flight.

(3) A person may not operate an aeroplane in icing conditions at night unless the aeroplane is equipped with a means to illuminate a representative surface or otherwise detect the formation of ice.

Surface contamination programme

121.08.28 (1) A person may not conduct or attempt to conduct a take-off in an aeroplane that has frost, ice or snow adhering to any of its critical surfaces.

(2) Despite subregulation (1), a person may conduct a take-off in an aeroplane that has frost adhering to the underside of its wings that is caused by cold-soaked fuel, if the take-off is conducted in accordance with the aeroplane manufacturer's instructions for take-off under the conditions.

(3) Where conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, a person may not conduct or attempt to conduct a take-off in an aeroplane unless the operator has established an aeroplane inspection programme in accordance with a surface contamination programme approved by the Executive Director and the dispatch and take-off of the aircraft are in accordance with that programme.

(4) The inspection referred to in subregulation (3) must be performed by –

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

(5) Where, before commencing take-off, a flight crew member of an aeroplane observes that there is frost, ice or snow adhering to the wings of the aeroplane, the crew member must immediately report that observation to the pilot-in-command and the pilot-in-command, or a flight crew member designated by the pilot-in-command, must inspect the wings of the aeroplane before take-off.

(6) Before an aeroplane is de-iced or anti-iced, the pilot-in-command of the aeroplane must ensure that the crew members and passengers are informed of the decision to do so.

(7) An operator is not required to have a programme as required by subregulation (3) if it includes a statement in its operations manual that the operator will not dispatch its aeroplane into any region or country where it could be reasonably expected that surface contamination could at any time form on the aeroplane, while parked or operating on the ground.

In-flight operational changes to a flight plan

121.08.29 (1) An operator must, when practicable, coordinate with the appropriate air traffic services unit any in-flight operational changes to a current air traffic services flight plan before the operator communicates the changes to the aeroplane.

(2) When the coordination required by subregulation (1) is not practicable, the pilot is responsible for obtaining an appropriate approval and clearance from an air traffic services unit, if applicable, before making a change in the flight plan.

Inertial navigation systems and inertial reference systems

121.08.30 An operator may not use inertial navigation systems or inertial reference systems unless the operator –

- (a) is authorised to do so in its operations specifications; and
- (b) complies with the inertial navigation systems or inertial reference systems requirements in Document NAM-CATS-OPS 121.

Mass and balance control

121.08.31 (1) A person may not operate an aeroplane unless, during every phase of the flight, the load restrictions, mass and centre of gravity of the aeroplane conform to the limitations specified in the aeroplane flight manual.

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

(3) An operator must specify in its operations manual its mass and balance programme and instructions to employees regarding the preparation and accuracy of mass and balance forms and the load and trim sheet in accordance with regulation 121.04.9.

Low visibility operations

121.08.32 (1) An operator may not assign a pilot to conduct a low visibility take-off or Category II or III approach unless –

- (a) the operator meets the conditions specified in Document NAM-CATS-OPS 121;
- (b) an operator is authorised to do so in its operations specifications; and
- (c) a low visibility operation is conducted in accordance with procedures approved for the operator in its operations manual.

(2) A pilot may not conduct a visibility take-off or Category II or III approach unless the conditions specified in subregulation (1) are met.

Operations with head-up displays or vision systems

121.08.33 (1) An operator may only stipulate the use of automatic landing systems, head-up display or equivalent displays, enhanced vision system, synthetic vision system, combined vision system or any combination of those systems into a hybrid system for the safe operation of an aeroplane, if –

- (a) the operator is authorised to do so in its operation specifications;
- (b) the operator ensures that the requirements of automatic landing systems, a head-up display or equivalent display, enhanced vision system, synthetic vision system, or combined vision system whichever is applicable, as provided for in Document NAM-CATS-OPS 121 are complied with;
- (c) the equipment meets the appropriate airworthiness certification requirements;
- (d) the operator has carried out a safety risk assessment of the operation supported by automatic landing systems, a head-up display or equivalent display, enhanced vision system, synthetic vision system, or combined vision system;

- (e) the Executive Director has authorised operational credit for the operations with an aeroplane equipped with automatic landing systems, a head-up display or equivalent displays, enhanced vision system, synthetic vision system, or combined vision system; and
 - (f) the operator has applied for a specific approval where operational credit relates to low visibility operations but the specific approval must not affect the classification of instrument approach procedure.
- (2) An operator must include suitable operational procedures for the use of, and training requirements for, equipment referred to in subregulation (1) in the operations manual referred to in regulation 121.04.2, which must provide for the following:
- (a) Equipment limitations;
 - (b) operational credits as provided for in Document NAM-CATS-OPS 121;
 - (c) flight planning;
 - (d) ground and airborne operations;
 - (e) crew resource management;
 - (f) standard operating procedures; and
 - (g) air traffic services flight plans and communication.

Operations with electronic flight bags

- 121.08.34** (1) A person may not use an electronic flight bag unless the person –
- (a) is authorised to do so in terms of the operations specifications; and
 - (b) complies with the electronic flight bag requirements in Document NAM-CATS-OPS 121.
- (2) Where an electronic flight bag is used on board an aircraft, an operator or owner of the aircraft must –
- (a) assess the safety risk associated with each electronic flight bag function;
 - (b) establish and document procedures for the use of, and training requirements for and electronic flight bag device and each electronic flight bag function in the operator or operations manual of the owner;
 - (c) ensure that, in the event of an electronic flight bag failure, sufficient information is readily available to a flight crew for a flight concerned to be conducted safely;
 - (d) ensure that requirements are established for redundancy of information, if appropriate, contained and displayed by electronic flight bag functions;
 - (e) ensure that the electronic flight bag equipment and its associated installation hardware, including interaction with aircraft systems if applicable, meet the appropriate airworthiness certification requirements; and
 - (f) establish and document procedures for the management of the electronic flight bag functions including any database it may use.

(3) Where a portable electronic flight bag is used on board aircraft, an operator or owner of an aircraft must ensure that the portable electronic flight bag does not affect a performance of aircraft systems, equipment or the ability to operate an aircraft.

DIVISION THREE: CABIN SAFETY

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

121.08.35 (1) A person may not operate an aircraft unless the aircraft is equipped, as applicable, with –

- (a) a seat or berth for each person who is aged two years or more;
- (b) a safety belt with or without a diagonal shoulder strap, or a safety harness, for use in each passenger seat for each passenger who is aged two or more;
- (c) a safety belt for use in each passenger berth;
- (d) a child restraint device for carriage of each child and infant as provided for in Document NAM-CATS-OPS 121;
- (e) a safety harness for each flight crew member seat, incorporating a device which must automatically restrain the torso of an occupant in the event of rapid deceleration; and
- (f) a safety harness for each cabin crew member seat but a safety belt with one diagonal shoulder strap is permitted if a fitting of a safety harness is not practical.

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

(3) If a pilot-in-command cannot see all passenger seats in an aircraft from his or her own seat, a means of indicating to all passengers and cabin crew members that seat belts must be fastened, must be installed.

(4) A safety harness and safety belt must have a single point release.

(5) A passenger must not be responsible for the safety of more than one infant on board aircraft.

Carriage of persons with a disability

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

(2) An operator must ensure that –

- (a) the pilot-in-command of the aeroplane is notified when a passenger with a disability is to be carried on board;
- (b) a passenger with a disability is not seated in the same row or a row directly forward or aft of an emergency exit;

- (c) individual briefings on emergency procedures are given to a passenger with a disability and his or her able-bodied assistant, appropriate to the needs of the passenger; and
 - (d) the person giving the briefing must 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 aeroplane –
- (a) the stretcher must be secured in the aeroplane so as to prevent it from moving under the maximum accelerations likely to be experienced in flight and in an emergency alighting the as a ditching;
 - (b) the patient must be secured by an approved harness to the stretcher or aeroplane structure; and
 - (c) an able-bodied assistant must accompany each stretcher patient.
- (4) A person with a mental disability may not be carried in the aeroplane unless –
- (a) he or she is accompanied by an able-bodied assistant; and
 - (b) a medical certificate has been issued by a medical practitioner certifying that the person with the mental disability is suitable for carriage by air and confirming that there is no risk of violence from the person.
- (5) An operator must undertake the carriage of a person with a mental disability who, according to his medical history, may become violent, only after special permission has been obtained from the Executive Director by the 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) must 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 must be accompanied by an able-bodied assistant.

Limitations on carriage of children and passengers with disability

121.08.37 (1) Unless otherwise authorised by the Executive Director, the maximum number of passengers with a disability, unaccompanied minors, or a combination of the passengers and minors, which may be carried by an operator, is limited to one per unit of 20 passenger capacity or part thereof to a maximum of 10 the passengers or minors.

(2) At least one able-bodied assistant must be carried for every group of five passengers with a disability or unaccompanied minors, or a part or combination of that group, and the assistant must be assigned with the responsibility for the safety of the passengers or minors unless the passengers with a disability can assist themselves.

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

(4) An operator may establish procedures instead of the provisions of subregulations (2) and (3) for the carriage of children and passengers with a disability but –

- (a) the procedures must not jeopardise aviation safety; and
- (b) prior written approval to do so must be obtained from the Executive Director.

Carriage of persons without documentation, deportees or persons in custody

121.08.38 (1) An operator must establish procedures for the carriage of persons without documentation, deportees or persons in custody to ensure the safety of the aeroplane and its occupants.

(2) The pilot-in-command of the aeroplane must be notified by the operator prior to departure, of the intended carriage and the reason for carriage, of any of the persons referred to in subregulation (1).

Carry-on baggage

121.08.39 (1) An operator must establish adequate procedures to ensure that only the baggage is carried onto the aeroplane 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) must be as provided for in Document NAM-CATS-OPS 121.

Hold baggage screening

121.08.40 (1) An operator engaged in international civil aviation operations, may not carry any originating hold baggage unless the baggage has been screened prior to being loaded into the aircraft.

(2) The minimum requirements for the procedures referred to in subregulation (1) must be as provided for in Document NAM-CATS-OPS 121.

(3) An operator engaged in a scheduled commercial air service may not carry any originating hold baggage unless the baggage has been screened prior to being loaded into the aircraft.

(4) The minimum requirements for the procedures referred to in subregulation (3) must be as provided for in Document NAM-CATS-OPS 121.

Securing of passenger cabin and galley

121.08.41 (1) Before take-off and landing and whenever considered necessary in the interests of aviation safety, the pilot-in-command must ensure that –

- (a) all equipment, baggage and loose articles in the cabin of the aeroplane, including passenger service items and crew members' and passengers' personal effects, are properly secured and stowed so as to avoid the possibility of injury to persons or damage to the aeroplane through the movement of the articles caused by in-flight turbulence or by unusual accelerations or manoeuvres; and
- (b) all aisles, passage ways, exits and escape paths are kept clear of obstructions.

(2) All solid articles must be placed in approved stowage areas in the aeroplane at all times whenever the seat belt lights are illuminated or when so directed by the pilot-in-command of the aeroplane.

(3) For the purposes of subregulation (2), “approved stowage area” means –

- (a) the area under a passenger seat; or
- (b) a locker, overhead or other, utilised in accordance with the placarded mass limitation of the locker.

(4) A take-off or landing may not be commenced by the pilot-in-command of the aeroplane unless he or she has been informed of the safe condition of the cabin.

Passenger services

121.08.42 (1) Except when in use, all items provided for passenger services, including food containers, thermos flasks and servicing trays, must be carried in their respective stowages and secured against movement likely to cause injury to persons or damage to the aeroplane.

(2) All items referred to in subregulation (1) must be stowed during take-off and landing or during emergency situations, as directed by the pilot-in-command of the aeroplane.

(3) Any item which cannot be accommodated in the stowage, referred to in subregulation (1), must not be permitted in the cabin of the aeroplane.

(4) Securing of the cabin must be completed by the cabin crew members before the approach for landing of the aeroplane is commenced.

(5) If passenger services are provided while the aeroplane is on the ground, no passenger service equipment must obstruct the aisles or exits of the aeroplane.

Briefing of passengers

121.08.43 (1) The pilot-in-command must ensure that passengers are given a safety briefing in accordance with Document NAM-CATS-OPS 121.

(2) Where the safety briefing referred to in subregulation (1) is insufficient for a passenger because of the physical, sensory or comprehension limitations that passenger or because that passenger is responsible for another person on board the aeroplane, the pilot-in-command must ensure that the passenger is given an individual safety briefing that is appropriate to the needs of the passenger.

(3) The pilot-in-command must ensure that, in the event of an emergency and where time and circumstances permit, all passengers are given an emergency briefing in accordance with the Document NAM-CATS-OPS 121.

(4) The pilot-in-command must ensure that each passenger who is seated next to an emergency exit is made aware of how to operate that exit.

Safety features card

121.08.44 An operator must provide each passenger, at the seat of the passenger, with a safety features card containing, in pictographic form, and any wording in English or as required by

the Executive Director and must contain the information as provided for in Document NAM-CATS-OPS 121.

Carriage of supernumeraries

121.08.45 (1) An operator may establish procedures for the carriage of supernumeraries but the procedures must –

- (a) not jeopardise aviation safety and security; and
- (b) be approved by the Authority .

(2) Subject to subregulation (1), an operator must allow supernumeraries to board an aeroplane without being in possession of a valid passenger ticket.

(3) An operator must enter the details of all supernumeraries on board a flight on the passenger manifest or general declaration, as applicable, as referred to in regulation 91.03.1(a)(vi).

Seating of supernumeraries during flight

121.08.46 During take-off and landing, and whenever considered necessary by the pilot-in-command in the interests of aviation safety, supernumeraries must be seated at their assigned stations or seats.

Portable electronic devices

121.08.47 An operator of an aircraft must ensure that a passenger and crew do not operate any portable electronic device on an aircraft, except with a permission of a pilot-in-command of aircraft.

SUBPART 9 AEROPLANE PERFORMANCE OPERATING LIMITATIONS

General requirements

121.09.1 (1) An operator may not operate an aeroplane unless the aeroplane meets the requirements specified in this Subpart.

(2) Any determination made for the purposes of this Subpart must be based on approved performance data specified in the aeroplane flight manual for the aeroplane concerned supplemented as necessary with other data acceptable to the Executive Director.

(3) A person may operate an aeroplane without complying with the requirements of this Subpart if the person –

- (a) is authorised to do so in the operations specifications of the operator; and
- (b) complies with the requirements as provided for in Document NAM-CATS-OPS 121.

(4) Where an operator uses charts or graphs published in the approved aeroplane flight manual, allowance should be made to ensure any extract errors will be on the side of safety.

(5) An operator must adopt obstacle data sufficient to make accurate and safe performance calculations.

(6) In complying with any of the provisions in this Subpart, all factors that significantly affect the performance of an aeroplane, as applicable to any phase of a flight, must be taken into account and must include as a minimum the –

- (a) mass of the aeroplane;
- (b) operating procedures employed by an operator;
- (c) pressure-altitude appropriate to an elevation of an aerodrome;
- (d) ambient temperature;
- (e) wind;
- (f) runway slope; and
- (g) surface condition of a runway at the expected time of use.

(7) The factors specified in subregulation (6) must be taken into account either directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the aeroplane is being operated.

(8) An aeroplane must be operated in compliance with the terms of its certificate of airworthiness and within the approved operating limitations contained in its flight manual.

(9) A flight may not be commenced unless the performance information provided in the flight manual, supplemented as necessary with other data acceptable to the Executive Director, indicates that the standards in this Subpart can be complied with for the flight to be undertaken.

Take-off mass limitations

121.09.2 (1) A person may not conduct a take-off in an aeroplane if the mass of the aeroplane –

- (a) exceeds maximum take-off weight specified in the aeroplane's flight manual for the pressure altitude and ambient temperature at an aerodrome where the take-off is to be made; or
- (b) exceeds landing mass specified in the aeroplane's flight manual for a pressure altitude and an ambient temperature at a destination aerodrome or alternate aerodrome, after allowing for planned fuel consumption during a flight.

(2) A person may not conduct a take-off in an aeroplane unless the aeroplane is able, in an event of a critical engine failing or for other reasons, at any point in a take-off, either to discontinue a take-off and stop within the accelerate-stop distance available or to continue a take-off and clear all obstacles along a flight path by an adequate vertical or horizontal distance.

(3) For the purpose of determining an accelerate stop distance, a pilot-in-command must take into account a loss, if any, of runway length due to alignment of an aeroplane prior to take-off.

(4) For the purpose of determining a resulting take-off obstacle accountability area, a pilot-in-command must take into account the crosswind component and navigation accuracy.

- (5) In the determination of a maximum take-off mass referred to in subregulation (1) –

- (a) the required accelerate-stop distance must not exceed the accelerate-stop distance available;
- (b) the required take-off run must not exceed the take-off run available; and
- (c) the required take-off distance must not exceed the take-off distance available.
- (6) For the purposes of subregulation (2), the following factors must be applied –
 - (a) pressure altitude at an aerodrome;
 - (b) ambient temperature;
 - (c) runway slope in a direction of take-off;
 - (d) not more than 50% of the reported headwind component or not less than 150% of the reported tailwind component;
 - (e) loss of effective take-off run during runway alignment except where rolling take offs are approved;
 - (f) where a runway condition is other than dry an appropriate penalty based upon runway condition or contaminants on a runway must be factored into the performance calculation;
 - (g) maximum take-off weight of an aeroplane;
 - (h) specific operating procedures; and
 - (i) any other factor that may significantly affect aeroplane performance.

Net take-off flight path

121.09.3 (1) A person may not conduct a take-off in an aeroplane if the mass of the aeroplane is greater than the mass specified in the aeroplane flight manual as allowing a net take-off flight path that clears all obstacles by at least 35 feet vertically or at least 62 metres horizontally within the aerodrome boundaries and by at least 95 metres horizontally outside those boundaries.

(2) In the determination of the maximum mass, minimum distances and flight path referred to in subregulation (1) –

- (a) corrections must be made for –
 - (i) the runway to be used;
 - (ii) the runway slope in the direction of take-off;
 - (iii) the pressure-altitude at the aerodrome;
 - (iv) the ambient temperature; and
 - (v) the wind component at the time of take-off, where not more than 50 percent of the reported headwind component or not less than 150 percent of the reported tailwind component may be considered; and

- (b) calculations must be based on the pilot –
 - (i) not banking the aeroplane before reaching an altitude of 50 feet;
 - (ii) subject to subregulation (3), using 15 degrees or less of bank at or below 400 feet;
 - (iii) using no more than 25 degrees of bank thereafter, aeroplane speed and configuration permitting; and
- (c) consideration of the effects of any crosswind and navigation accuracy must be taken into account.

(3) A bank angle greater than the 15 degrees referred to in subregulation (2)(b)(ii) may be used if it is authorised by the Executive Director.

En-route limitations with one engine inoperative

121.09.4 (1) A person may not conduct a take-off in an aeroplane if the mass of the aeroplane is greater than the mass that will allow the aeroplane to attain, with any engine inoperative, a net flight path that –

- (a) has a positive slope at 1 000 feet above all terrain and obstructions within five nautical miles on either side of the intended track, at all points along the route or planned diversion therefrom; or
- (b) will permit flight from the cruising altitude to an aerodrome where the requirements of regulation 121.09.6 can be complied with and clears vertically, by at least 2 000 feet, all terrain and obstructions within five nautical miles on either side of the intended track.

(2) For the purposes of subregulation (1), the following factors must be taken into account after an engine failure –

- (a) the effects of wind and temperature on the net flight path; and
- (b) the effects of fuel jettisoning, where the jettisoning is conducted in accordance with procedures specified in the operations manual of the operator and sufficient fuel remains to complete a landing with the required fuel reserves.

En-route limitations with two engines inoperative

121.09.5 (1) A person may not operate an aeroplane having three or more engines unless the mass of the aeroplane is not greater than the mass that, according to the two-engines-inoperative en-route net flight path data shown in the aeroplane flight manual, will allow the aeroplane to clear vertically, by at least 2,000 feet, all terrain and obstructions within five nautical miles on either side of the intended track and thereafter to continue flight to an aerodrome where the requirements of regulation 121.09.6 can be complied with.

(2) For the purposes of subregulation (1)(b), the following factors must be taken into account after the failure of two engines –

- (a) the effects of wind and temperature on the net flight path; and

- (b) the effects of fuel jettisoning, where the jettisoning is conducted in accordance with procedures specified in the operations manual of the operator and sufficient fuel remains to arrive at the destination aerodrome at 1 500 feet AGL with a fuel reserve sufficient to fly for 15 minutes thereafter at cruise power.

Dispatch limitations: landing at destination and alternate aerodromes

121.09.6 (1) Subject to subregulation (3), a person may not dispatch or conduct a take-off in an aeroplane unless –

- (a) the mass of the aeroplane on landing at the destination aerodrome will allow a full-stop landing –
 - (i) in the case of a turbojet- or turbofan-powered aeroplane, within 60 percent of the landing distance available, or
 - (ii) in the case of a propeller-driven aeroplane, within 70 percent of the landing distance available; and
- (b) the mass of the aeroplane on landing at the alternate aerodrome will allow a full-stop landing –
 - (i) in the case of a turbojet- or turbofan-powered aeroplane, within 60 percent of the landing distance available, and
 - (ii) in the case of a propeller-driven aeroplane, within 70 percent of the landing distance available.

(2) In determining whether an aeroplane can be dispatched or a take-off can be conducted in accordance with subregulation (1), the following must be taken into account –

- (a) the pressure altitude at the destination aerodrome and at the alternate aerodrome;
- (b) not more than 50 percent of the reported headwind component or not less than 150 percent of the reported tailwind component may be used in computing distances for take-off or landing; and
- (c) that the aeroplane must be landed on a suitable runway, considering the wind speed and direction, the ground handling characteristics of the aeroplane and other conditions the as landing aids and terrain.

(3) Where conditions at the destination aerodrome at the time of take-off do not permit compliance with subregulation (2)(c), an aeroplane may be dispatched and a take-off conducted if the alternate aerodrome designated in the operational flight plan permits, at the time of take-off, compliance with subregulations (1)(b) and (2).

(4) Where the aerodrome of intended landing has in place noise criteria that may require a landing mass reduction, the take-off mass must be adjusted to comply with the limitations.

(5) All flights must be planned so that the diversion time to an aerodrome where a safe landing could be made does not exceed the cargo compartment fire suppression time capability of the aeroplane, reduced by an operational safety margin of 15 minutes.

Dispatch limitations: wet runway- turbojet- or turboprop-powered aeroplanes

121.09.7 (1) Subject to subregulation (2), when meteorological information contemplated in Part 174 indicate that the runway may be wet at the estimated time of arrival, an operator may not dispatch or conduct a take-off in a turbojet- or turboprop-powered aeroplane unless the landing distance available at the destination aerodrome is at least 115 percent of the landing distance required in terms of regulation 121.09.6(1)(a).

(2) The landing distance available on a wet runway may be shorter than that required by subregulation (1) but not shorter than that required by regulation 121.09.6, if the aeroplane flight manual includes specific information about landing distances on wet runways.

Landing at destination and alternate aerodromes

121.09.8 (1) An operator must ensure that the landing mass of the aeroplane, determined in accordance with the provisions of regulation 121.09.1(9), does not exceed the maximum landing mass specified for the altitude and the ambient temperature expected for the estimated time of landing at the destination and alternate aerodrome.

(2) For instrument approaches with decision heights below 200 feet, the operator must verify that the approach mass of the aeroplane, taking into account the take-off mass and the fuel expected to be consumed in flight, allows a missed approach gradient of climb of at least 2,5 percent in the approach configuration with one engine inoperative, or an approved alternative procedure.

Landing on dry runways

121.09.9 (1) An operator must ensure that the landing mass of the aeroplane for the estimated time of landing, allows a full stop landing from 50 feet above the threshold within 70 percent of the landing distance available at the destination aerodrome and at any alternate aerodrome but the Executive Director may permit the use of a screen height of less than 50 feet, but not less than 35 feet, for steep-approach and short-landing procedures.

(2) When complying with the provisions of subregulation (1), the operator must take account of –

- (a) the pressure altitude at the aerodrome; and
- (b) not more than 50 percent of the reported head-wind component or not less than 150 percent of the reported tail-wind component.

Landing on wet and contaminated runways

121.09.10 (1) An operator must ensure that, when the appropriate meteorological information contemplated in Part 174, indicate that the runway at the estimated time of arrival may be wet, the landing distance available is at least 115 percent of the required landing distance determined in accordance with the provisions of regulation 121.09.9.

(2) An operator must ensure that, when the appropriate meteorological information contemplated in Part 174, indicate that the runway at the estimated time of arrival may be contaminated, the landing distance available must be at least the landing distance determined in accordance with the provisions of subregulation (1) or at least 115 percent of the landing distance determined in accordance with approved contaminated landing distance data or an equivalent of the approved contaminated landing distance data, whichever is the greater.

(3) A landing distance on a wet runway shorter than the landing distance required by the provisions of subregulation (1), but not less than the landing distance required by the provisions of regulation 121.09.9(1), may be used if the aeroplane flight manual referred to in regulation 121.04.4 includes specific additional information on landing distances on wet runways.

SUBPART 10 MAINTENANCE

General

121.10.1 An operator may not operate any aeroplane under this Part unless the aeroplane is maintained in accordance with the regulations in Part 43.

Aeroplane maintenance programme

121.10.2 (1) Each operator must ensure that the aeroplane is maintained in accordance with an aeroplane maintenance programme established by the operator.

(2)

(a) An operator must provide a maintenance programme, approved by the Executive Director, containing the information required by subregulation (3) for the use and guidance of the maintenance and operational personnel concerned.

(b) The design and application of the maintenance programme of an operator must observe human factors principles.

(3) The maintenance programme referred to in subregulation (1) must be developed for each aeroplane type and must contain the following information –

(a) maintenance tasks and the intervals at which these are to be performed, taking into account the anticipated utilization of the aeroplane;

(b) when applicable, a continuing structural integrity programme;

(c) procedures for changing or deviating from paragraphs (a) and (b); and

(d) when applicable, condition monitoring and reliability programme descriptions for aircraft systems, components and powerplants.

(4) Maintenance tasks and intervals that have been specified as mandatory in approval of the type design must be identified as the.

(5) The maintenance programme must be based on information made available by the State of Design or by the organisation responsible for the type design, and any applicable operational, maintenance and regulatory requirements issued by the Executive Director.

(6) Any amendment to the approved programme must be formulated by the operator, to reflect changes in the type certificate holder's recommendations, modifications, reliability programme, service experience, or as required by the Executive Director.

(7) The aeroplane maintenance programme referred to in subregulation (1) and any subsequent amendment of that maintenance programme must be approved by the Executive Director.

(8) Upon approval of the Executive Director, copies of all amendments to the maintenance programme must be furnished promptly to all organizations or persons to whom the maintenance programme has been issued.

Maintenance contracted to approved aircraft maintenance organisation

121.10.3 If maintenance on a large commercial air transport aeroplane 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 aeroplane must ensure that all contracted maintenance is carried out in accordance with the regulations in Part 43.

Operator's maintenance responsibilities

121.10.4 (1) An operator must establish procedures acceptable to the Executive Director that ensure that –

- (a) an aeroplane is maintained in an airworthy condition;
- (b) an operational and emergency equipment necessary for an intended flight is serviceable;
- (c) a certificate of airworthiness of each aircraft remains valid at all times during the operation; and
- (d) an operation of an aircraft meets special conditions which may be imposed.

(2) An operator may not operate an aircraft unless it is maintained and released to service by an organisation approved in accordance with Part 145.

(3) A release to service referred to in subregulation (2) must be conducted as stipulated in regulation 121.10.3.

(4) An operator must employ sufficient personnel to ensure that maintenance is carried out in accordance with the maintenance control manual as stipulated in regulation 121.10.5.

(5) An operator must ensure that the maintenance of an aircraft is performed in accordance with the maintenance programme referred to in regulation 121.10.2.

Operator's maintenance control manual

121.10.5 (1) An operator must provide a maintenance control manual that meets the requirements in Document NAM-CATS-OPS 43 for use and guidance of maintenance and operational personnel concerned.

(2) A maintenance control manual referred to in subregulation (1) must incorporate relevant principles of human factors.

(3) An operator must apply to the Executive Director for approval or amendment of a maintenance control manual by submitting two copies of the maintenance control manual or amendment, as applicable, to the Executive Director who must retain a copy of each manual or amendment.

(4) An operator may, in accordance with the amendment procedures contained in a maintenance control manual amend the manual in order to –

- (a) keep information up to date; and
- (b) accurately reflect the operator's company policy with respect to aeroplane maintenance.

(5) Upon approving an amendment to a maintenance control manual, the Executive Director must furnish an operator with a copy of the amendment with clear instructions to insert the amended pages in a timely manner into a maintenance control manual.

(6) The Executive Director may require an operator to amend a maintenance control manual where in the Executive Director's opinion, a maintenance control manual requires updating.

(7) An operator's maintenance control manual must have description of –

- (a) procedures required in terms of regulation 121.10.4 including a description of the administrative arrangements between the operator and an approved maintenance organisation;
- (b) maintenance procedures and the procedures for completing and signing a maintenance release;
- (c) names and duties of a person employed to ensure that all maintenance is carried out in accordance with a maintenance control manual;
- (d) references to or maintenance programme required in terms of regulation 121.10.2;
- (e) methods used for completion and retention of the operator's maintenance records;
- (f) methods used for completion and retention of the operator's continuing airworthiness records;
- (g) procedures for monitoring, assessing, and reporting maintenance and operational experience with respect to continuing airworthiness;
- (h) procedures for providing information required by a State of Registry, when operating an aeroplane of over 5 700 kilogrammes maximum take-off mass;
- (i) procedures for complying with service information reporting requirements;
- (j) procedures for assessing continuing airworthiness information and implementing any resulting actions after receiving continuing airworthiness information or recommendations from an organisation responsible for a type design;
- (k) procedures for implementing resulting actions considered necessary in accordance with a procedure acceptance to a State of Registry;
- (l) procedures for implementing action resulting from mandatory continuing airworthiness information;
- (m) procedures for establishment and maintenance of a system of analysis and continued monitoring of performance and efficiency of a maintenance programme, in order to correct any deficiency in that programme;
- (n) aircraft types and models to which a manual applies;

- (o) procedures for ensuring that any unserviceability affecting airworthiness is recorded and rectified; and
- (p) procedures for advising a State of Registry of any significant in-service occurrence.

(8) Upon approval of the Executive Director, copies of all amendments to the maintenance control manual must be furnished promptly to all organizations or persons to whom the manual has been issued.

Maintenance records

121.10.6 (1) An operator must ensure that the following records are kept for the periods specified in subregulation (2) –

- (a) the total time in service (hours, calendar time and cycles, as appropriate) of the aeroplane and all life limited components;
- (b) the current status of compliance with all mandatory continuing airworthiness information;
- (c) appropriate details of modifications and repairs;
- (d) the time in service (hours, calendar time and cycles, as appropriate) since the last overhaul of the aeroplane or its components subject to a mandatory overhaul life;
- (e) the current status of the aeroplane's compliance with the maintenance programme; and
- (f) the detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.

(2) The records referred to –

- (a) in subregulation (1)(a) to (e) must be kept for a minimum period of 90 days after the unit to which they refer has been permanently withdrawn from service;
- (b) in subregulation (1)(f) must be kept for a minimum period of 5 years after the signing of the maintenance release; and
- (c) in paragraphs (a) and (b) must be kept, transferred and maintained in a form and format that ensures readability, security and integrity of the records at all times.

(3) In the event an aeroplane is leased or otherwise transferred temporarily to another operator, the records must be made available to the new operator.

(4) In the event of any permanent change of operator, the records must be transferred to the new operator.

Continuing airworthiness information

121.10.7 (1) An operator must monitor and assess maintenance and operational experience with respect to continuing airworthiness of each aircraft they operate and provide the information as required by the Executive Director.

(2) Information referred to in subregulation (1) must be submitted to the Executive Director using a reporting system developed for that purpose.

(3) The Executive Director must transmit all mandatory continuing airworthiness information reported to him or her in accordance with subregulation (2) to the State of Design of any aeroplane that has been issued a Namibian Certificate of Airworthiness and operated in terms of this Part.

(4) An operator must, for each aircraft they operate under this Part, obtain and assess continuing airworthiness information and recommendations issued by the aircraft manufacturer, an organisation responsible for the aircraft type design or by a State of Design of the aircraft.

(5) Despite the provisions of subregulation (4), an operator must meet any additional requirements and conditions issued by the Executive Director for each type of aircraft operated under this Part and must implement resulting actions considered necessary in accordance with a procedure acceptable to the Executive Director.

Modifications and repairs

121.10.8 (1) All modifications and repairs must comply with airworthiness requirements acceptable to the Executive Director.

(2) Procedures must be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained.

SUBPART 11 SAFETY AND QUALITY MANAGEMENT SYSTEMS

Requirement for quality management system

121.11.1 (1) An operator must establish a quality management system that meets the requirements in Document NAM-CATS-OPS 121.

(2) An operator of an aeroplane of a maximum certificated take-off mass in excess of 27 000 kg must establish and maintain a flight data analysis programme as part of its safety management system.

(3) The quality management system referred to in subregulation (1) must –

- (a) be integrated with the safety management system established in terms of Part 140;
- (b) include a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with all applicable requirements, standards and procedures; and
- (b) be described in relevant documentation as provided for in Document NAM-CATS-OPS 121.

(4) An operator must designate a person responsible for the quality management system who meets the qualifications and experience requirements and who will be responsible for the functions as provided for in Document NAM-CATS-OPS 121.

(5) An operator must prepare a quality management manual that meets the requirements prescribed in Document NAM-CATS-OPS 121.

(6) Despite subregulation (4), the operator may appoint two quality managers, one for flight operations and one for maintenance but the operator must designate one single quality management unit to ensure that the quality system is applied uniformly throughout the entire operation.

(7) An air service operator must establish a flight safety documents system, for the use and guidance of operational personnel, as part of its safety management system.

SUBPART 12 SECURITY

Aviation security for domestic and international air transport operations

121.12.1 Despite the security requirements specified under this Part, an operator, owner or pilot-in-command, as the case may be, must ensure that the security requirements specified in Parts 108 to 114 in respect of all domestic and international air transport operations are complied with.

SUBPART 13 DANGEROUS GOODS

Transportation of dangerous goods

121.13.1 When transporting dangerous goods the operator, owner or pilot-in-command must comply with the requirements of Part 92.”.

Substitution of Part 127 of Regulations

6. The Regulations are amended by the substitution for Part 127 of the following Part:

“PART 127 COMMERCIAL HELICOPTER OPERATIONS: PASSENGERS, CARGO AND MAIL

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Division two: Flight crew member training

127.03.4 Flight crew member training

Division three: Training of cabin crew members

127.03.5 Initial training
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127.04.3 Aircraft operating manual
127.04.4 Aircraft flight manual
127.04.5 Operational flight plan
127.04.6 Flight time and duty period records
127.04.7 Records of emergency and survival equipment
127.04.8 Crew member training records
127.04.9 Mass and balance sheet
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- 127.05.2 Flight, navigation and associated equipment for helicopters operated under visual flight rules
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- 127.05.5 Flight crew interphone system
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- 127.05.8 Life jackets and other flotation devices
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- 127.05.10 Cabin attendant seats
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SUBPART 6: AIR OPERATOR CERTIFICATE

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- 127.06.2 Application for issue or amendment of an air operator certificate and operations specifications
- 127.06.3 Application for, consideration of and issue of air operator certificate or operations specifications
- 127.06.4 Validity and status of air operator certificate
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- 127.07.1 Requirement for foreign air operator permit
- 127.07.2 Application for foreign air operator permit or amendment of foreign air operator permit
- 127.07.3 Assessment of application and issue of permit
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- 127.09.3 Take-off
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- 127.09.6 General
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Division four: Class 3 helicopter

- 127.09.10 General
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SUBPART 11: SAFETY AND QUALITY MANAGEMENT SYSTEMS

- 127.11.1 Requirement for safety management system

SUBPART 12: SECURITY

- 127.12.1 Aviation security for domestic and international air transport operations

SUBPART 13: DANGEROUS GOODS

- 127.13.1 Transportation of dangerous goods

**SUBPART 1
GENERAL**

Applicability

- 127.01.1** (1) This Part applies to –
- (a) any operator of a helicopter registered in Namibia and operated in terms of the Air Services Act;
 - (b) any approved aviation training organisation engaged in the provision of flight training and operating more than five helicopters for flight training;
 - (c) all persons employed or otherwise engaged by the operator, referred to in paragraph (a) or (b), and who perform functions essential to the operation of a helicopter operated under this Part; and
 - (d) all persons, mail or cargo on board a helicopter operated under this Part.

(2) For the purposes of this Part a helicopter registered in another State and operated by the holder of an air operator certificate issued in Namibia, is considered to be registered in Namibia.

(3) Part 91 applies with the necessary changes to any helicopter operated in terms of this Part.

(4) Unless the context suggests otherwise, throughout this Part the expression “operator” means an operator referred to in paragraph (a) or (b) of subregulation (1) and in the absence of the operator referred to in paragraph (a) or (b) of that subregulation, it means the owner of the helicopter operated in Namibia.

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

Admission to flight crew compartment

127.01.2 (1) An operator and the pilot-in-command of a helicopter must ensure that a person is not admitted to or carried on the flight crew compartment of the helicopter unless the person is –

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

(2) Where the Executive Director has authorised an authorised officer, inspector or authorised person in terms of regulation 13.01.2 to carry out in-flight inspections of a helicopter engaged in an air service operation and the authorised officer, inspector or authorised person indicates to the pilot-in-command that he or she wishes to carry out such an in-flight inspection, the pilot-in-command must give the authorised officer, inspector or authorised person free and uninterrupted access to the flight crew compartment of the helicopter.

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

(4) Despite subregulation (2) or (3), the final decision regarding the admission of any person to the flight crew compartment must be the responsibility of the pilot-in-command.

(5) The admission of any person to the flight crew compartment must not interfere with the operation of the helicopter.

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

Passenger intoxication and unruly behaviour

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

(2) An operator must establish procedures to ensure that any person referred to in subregulation (1) is –

- (a) refused embarkation; or
- (b) if such person is on board, restrained or disembarked.

(3) Each passenger on board a helicopter must obey any command issued by a crew member in the performance of his or her duties.

Compliance with laws, regulations and procedures

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

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

- (a) flight operations into or within domestic and foreign airspace;
- (b) the area over which the operation will occur;
- (c) the aerodromes to be used; and
- (d) air navigation facilities to be used.

(3) Despite subregulation (2), each operator, including its employees or agents, must comply with all applicable provisions of these regulations.

Regulatory infractions during emergency situations

127.01.5 (1) Where the pilot-in-command of a helicopter takes action, considered necessary to ensure the safety of the helicopter, which results in a violation of any regulation of the State in, or over which the helicopter is being operated, he or she must comply with the requirements in regulation 91.01.2 and, where possible, cause the event to be marked on the cockpit voice recorder, if fitted.

(2) Despite any requirement to file a report in terms of regulation 91.01.2, a pilot-in-command must submit a full report of a violation referred to in subregulation (1), to a person responsible for operations within 48 hours after the conclusion of flight concerned in the manner specified in a concerned operator's operations manual.

(3) Despite any requirement to file a report in terms of regulation 91.02.7, the pilot-in-command must submit a full report of the event to the person responsible for operations within 48 hours after the conclusion of the flight in the manner specified in the operations manual referred to in regulation 127.04.2.

Language proficiency

127.01.6 (1) In addition to the English Language Proficiency referred to in Part 61 an operator may not assign a flight crew to duty unless at least one member of the flight crew has, demonstrated to the operator, his or her ability to speak and understand the language used for

radiotelephony communications over any route and aerodrome named in the operational flight plan for that flight.

(2) The level of language proficiency required to be demonstrated to the operator must be as provided for in Document NAM-CATS-OPS 127.

SUBPART 2 OPERATIONS PERSONNEL REQUIREMENTS

DIVISION ONE: MINIMUM CREW REQUIREMENTS

Composition of flight crew

127.02.1 (1) The minimum number and composition of the flight crew of a helicopter must not be less than the minimum number and composition specified in the operations manual referred to in regulation 127.04.2 or in the helicopter's aircraft flight manual referred to in regulation 91.03.2, whichever is the greater, and must take account of the type of helicopter used, the type of operation involved and the duration of flight between points where flight crews are changed.

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

(3) An operator may not assign a person, and a person may not act, as a flight crew member on a helicopter type or variant unless the person meets the qualification requirements in regulation 127.02.7.

(4) Each required flight crew member must hold a valid radiotelephony operator licence or equivalent document issued by an appropriate authority, authorising such member to operate the type of radio transmitting equipment to be used.

(5) The flight crew must be proficient in navigating over the route or within the area to be operated.

(6) An operator must ensure that –

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

(b) in the case of any operation, when 20 or more 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 if –

(a) the requirements in Document NAM-CATS-OPS 127 are complied with; or

(b) the minimum flight crew of such helicopter is two pilots.

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

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

(10) An operator may not assign flight crew members to any helicopter required to be operated with two flight crew members unless such flight crew meet the crew pairing requirements in document NAM-CATS-OPS 127.

(11) An operator may not assign a person, and a flight crew member may accept any assignment, to act as a flight crew member of any helicopter operated in terms of this Part not unless such person meets the requirements in document NAM-CATS-OPS 127.

(12) An operator must publish procedures in its operations manual referred to in regulation 127.04.2 to ensure flight crew members who do not meet the requirements in subregulations (1) and (2) are not assigned to flight duty.

Flight and cabin crew member emergency duties

127.02.2 (1) An operator and, where appropriate, the pilot-in-command, must assign to each flight and cabin crew member concerned the necessary functions to be performed in an emergency or a situation requiring emergency evacuation, and the operator must establish emergency evacuation procedures based on such assignment.

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

(3) With respect to the emergency evacuation procedures required by subregulation (1) –

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

(4) An operator must carry out an emergency evacuation demonstration referred to in subregulation (3)(b) when a new type or variant of helicopter or new configuration of an existing helicopter is introduced for use and for any helicopter type which has not been certified under a certification process acceptable to the Executive Director, as provided for in Document NAM-CATS-OPS 127.

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

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

Cabin crew member complement

127.02.3 (1) An operator may not operate a helicopter with a certificated passenger seating capacity of 20 or 20 or more in a passenger-carrying service unless –

- (a) one or more cabin crew members have been assigned to duty, if one or more passengers are carried; and

- (b) the minimum number of cabin crew members assigned to a flight is not less than that specified in Document NAM-CATS-OPS 127, despite the actual number of passengers on board the helicopter.
- (2) A cabin crew member must give priority to the performance of duties relating to the safety of passengers as may be assigned by the operator or the pilot-in-command.
- (3) In unforeseen circumstances, the operator may reduce the required minimum number of cabin crew members but –
 - (a) the number of passengers must be reduced in accordance with the procedures specified in the operations manual referred to in regulation 127.04.2; and
 - (b) a report on the reduction of the cabin crew members and passengers must be submitted to the Executive Director after completion of the flight.

Senior cabin crew member

- 127.02.4** (1) An operator must appoint a senior cabin crew member whenever more than one cabin crew member is carried on board a helicopter operated under this Part.
- (2) The senior cabin crew member is responsible to the pilot-in-command for the conduct of cabin operations and the coordination and performance of cabin crew duties.
- (3) An operator must establish procedures to select the next most suitably qualified cabin crew member to operate as a senior cabin crew member in the event of the nominated senior cabin crew member being unable to perform his or her duties.

Cabin crew emergency evacuation stations

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

Seating of cabin crew members during flight

127.02.6 During take-off and landing, and whenever considered necessary by the pilot-in-command in the interest of aviation safety, cabin crew members must be seated at their assigned stations or seats with the full safety harness or, except for take-off and landing, the seat belt fastened.

DIVISION TWO: QUALIFICATION REQUIREMENTS

Flight crew member qualifications

- 127.02.7** (1) An operator may not permit a person to act and a person may not act as a flight crew member of a helicopter unless, in addition to the recency requirements of regulation 91.02.4, the person –
- (a) holds valid licences, certificates and ratings as required by Part 61 and Part 63 appropriate to the assignment;
 - (b) meets the type and variant training and checking requirements in Subpart 3 and has otherwise fulfilled all applicable training requirements in Document NAM-CATS-OPS 127; and

- (c) in the case of the pilot-in-command of a helicopter operated in accordance with regulation 127.01.1, assigned to duty on a passenger-carrying flight, meets the area, route and aerodrome familiarisation requirements in Document NAM-CATS-OPS 127.
- (2) A pilot who does not meet the recency requirements of regulation 91.02.4 or whose training and checking validity periods have lapsed must regain competency as provided for in the regaining competency requirements in Subpart 3.
- (3) An operator must ensure that a holder of a commercial pilot licence (helicopter) does not operate as a pilot-in-command of a helicopter –
- (a) certificated for single-pilot operations when operating under instrument flight rules unless the requirements in regulation 127.02.1 (7) are complied with or unless –
- (i) when conducting operations in accordance with regulation 127.01.1 under visual flight rules outside a radius of 50 nautical miles from a place of departure, the pilot has a minimum of 300 hours total flight time on helicopter or holds a valid instrument rating; or
- (ii) when operating under instrument flight rules, the pilot has a minimum of 400 hours total flight time on helicopters, which includes 200 hours as pilot-in-command, of which 100 hours have been under instrument flight rules but the 200 hours as pilot-in-command may be substituted by hours operating as second-in-command on the basis of two hours as second-in-command being equivalent to one hour as pilot-in-command and these hours must be gained within an established multi-pilot flight crew system specified in the operations manual referred to in regulation 127.04.2;
- (iii) the minimum required recent experience for a pilot engaged in a single-pilot operation under instrument flight rules must be 5 instrument flight rules flights, including 3 instrument approaches, carried out during the preceding 90 days on a helicopter approved in the single-pilot role and this requirement may be replaced by an instrument flight rules instrument approach check on the helicopter or in a flight simulator training device approved for the purpose..
- (iv) 25 hours total instrument flight rules flight experience in the relevant operating environment;
- (v) 25 hours flight experience on the specific type of helicopter, approved for single-pilot instrument flight rules, of which 10 hours is as pilot-in-command or pilot-in-command-under-supervision, including 5 sectors of instrument flight rules line flying under supervision using the single-pilot procedures;
- (b) in multi-pilot flight crew operations, and prior to operating as pilot-in-command, the command course specified in paragraph 127.03.4 (1) (f) is completed.
- (4) Where a flight crew member operates more than one helicopter or variant of a helicopter under this Part the provisions of Document NAM-CATS-OPS 127 applies.
- (5) An operator may not utilise a pilot as pilot-in-command of a helicopter on a route, route segment or area for which that pilot is not currently qualified until such pilot has –

- (a) gained route and area qualification by demonstrating adequate knowledge of
 - (i) the route to be flown, and the aerodromes which are to be used and this must include knowledge of –
 - (aa) the terrain and minimum safe altitudes;
 - (bb) the seasonal meteorological conditions;
 - (cc) the meteorological, communication and air traffic facilities, services and procedures;
 - (dd) the search and rescue procedures; and
 - (ee) the navigational facilities and procedures, including any long-range navigation procedures, associated with the route along which the flight is to take place; and
 - (ii) procedures applicable to flight paths over heavily populated areas and areas of high air traffic density, special navigation and communication requirements, terrain and obstructions, physical layout, lighting, approach aids and arrival, departure, holding and instrument approach procedures, hazardous meteorological and atmospheric conditions, and applicable operating minima.
- (b) gained aerodrome qualification by making an actual approach into and departure from each aerodrome of landing on the route, accompanied by a pilot who is qualified for the aerodrome, as a member of the flight crew or as an observer in the flight crew compartment, unless –
 - (i) the approach to or departure from the aerodrome is not over difficult terrain and the instrument approach procedures and aids available are similar to those with which the pilot is familiar, and a margin to be approved by the Executive Director is added to the normal operating minima, or there is reasonable certainty that approach and landing can be made in visual meteorological conditions; or
 - (ii) the descent from the initial approach altitude can be made by day in visual meteorological conditions; or
 - (iii) the operator qualifies the pilot-in-command to land at the aerodrome concerned by means of an adequate pictorial method approved by the Executive Director; or
 - (iv) the flight procedures specified in subregulation (5)(b) are conducted in a flight simulator for the applicable helicopter type and approved by the Executive Director for such purpose; or
 - (v) the flight procedures specified in subregulation (5)(b) are conducted in a helicopter, or in a flight simulator for the applicable helicopter type and approved by the Executive Director for such purpose, as part of a training programme specified by the State of the aerodrome where special pilot-in-command qualification for use of that aerodrome is required by that State.
- (6) The pilot-in-command's route and aerodrome qualification referred to in subregulation (5) must –

- (a) for aerodrome qualification, remain valid for 12 months from the date of completion of the requirements in subregulation (5)(b);
 - (b) for route qualification, remain valid for 12 months from the date of completion of the requirements in subregulation (5)(a), or subsequently from the date of the last flight within the applicable route or area, such flight being conducted as an operating flight crew member, instructor, examiner or observer;
 - (c) in the event of a pilot-in-command's route or aerodrome qualification expiring, be renewed by completion of the requirements in subregulation (5).
- (7) Unless otherwise approved by the Executive Director, an operator may not assign a person to act, and a person may not act, as the pilot-in-command or second-in-command on more than –
- (a) two different types of helicopters, for which a separate licence endorsement is required, under this Part;
 - (b) one type of helicopter under this Part and an additional two aeroplane types of a maximum certificated take-off mass in excess of 5 700 kilogrammes, for which a separate licence endorsement is required, if operating under Parts 93, 121 or 135; or
 - (c) two different types of helicopters for which a separate licence endorsement is required under this Part and one additional different aeroplane type of maximum certificated take-off mass in excess of 5 700 kilogrammes, for which a separate licence endorsement is required, if operating under Parts 93, 121 or 135.
- (4) A pilot operating on more than one type of helicopter under this Part must meet the requirements in Document NAM-CATS-OPS 127.

Cabin crew member qualifications

127.02.8 An operator may not assign a person to act, and a person may not act, as a cabin crew member on board a helicopter unless the person –

- (a) holds a valid licence and appropriate ratings issued in terms of Part 64;
- (b) has successfully completed the operator's approved training programme outlined in Subpart 3, except that a person may act as a cabin crew member while undergoing operator induction training if the person is carried in addition to the number of cabin crew members required by regulation 127.02.2 (1) and is under the supervision of a cabin crew member; and
- (c) has successfully completed operator induction training within 90 days after completing the operator's training programme or has regained competency in accordance with Subpart 3.

Crew members, other than flight and cabin crew members

127.02.9 An operator may not assign a person to act, and a person may not act, as a specialist crew member, other than a flight or cabin crew member, on board a helicopter unless the person has successfully completed the operator's approved training programme for such specialists outlined in Subpart 3.

Flight operations officer or flight follower qualifications

127.02.10 (1) An owner or operator must 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.

(2) An operator must exercise operational control over all flight operations and thereto establish and maintain an approved method of supervision over all flights and if necessary, the operator must employ additional personnel as flight operations officers or flight followers.

(3) An operator may not permit a person to act, and a person may not act, as a flight operations officer, other than a person holding or having held a valid flight crew licence, unless he or she meets the training and checking requirements in Subpart 3.

(4) An operator may not permit a person to act, and a person may not act, as a flight follower unless he or she has successfully completed the training and checking requirements in Subpart 3, but this requirement does not apply to any person holding or having held a valid flight crew licence.

Ground personnel and service providers qualifications

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

DIVISION THREE: FLIGHT TIME AND DUTY LIMITATIONS**Flight time and duty scheme**

127.02.12 (1) An operator must –

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

(i) the flight time and duty period limitations, rest periods and days free of duty, specified in Document NAM-CATS-OPS 127; or

(ii) a system of flight time and duty period limitations, rest periods and days free of duty, proposed by the operator, where the Executive Director is of the opinion that an equivalent level of safety may be achieved by the operator's proposed scheme; and

(b) publish the scheme referred to in subregulation (1)(a) in the operations manual referred to in regulation 127.04.2.

(2) An operator may not assign an assignment to a crew member, and a crew member may not accept an assignment, if the assignment is not in compliance with the scheme referred to in subregulation (1)(a) or if –

(a) the operator or crew member knows or has been made aware that such flight assignment will cause the crew member to exceed the flight time and duty periods referred to in subregulation (1) (a) while on flight duty; or

- (b) the crew member is suffering, or having regard to the circumstances of the flight to be undertaken is likely to suffer, from fatigue, which may endanger the safety of the helicopter or its crew members and passengers.

(3) An operator may not schedule a flight crew member for active flight duty for a period exceeding the maximum hours specified in Document NAM-CATS-OPS 127 during any given flight time and duty period unless authorised in the scheme referred to in subregulation (1)(a).

(4) Where any flight crew member, cabin crew member or flight operations officer is aware of any reason they would be in violation of the scheme referred to in subregulation (1) (a), that person must, without delay, inform the person responsible for flight operations or his or her designated alternate.

(5) The provisions to be included in a flight time and duty scheme referred to in subregulation (1) must be as provided for in Document NAM-CATS-OPS 127.

Fatigue risk management system

127.02.13 (1) An operator who establishes a scheme for the regulation of flight time and duty periods in accordance with regulation 127.02.12 (1)(a)(ii) must establish a fatigue risk management system for the purpose of managing fatigue.

- (2) An operator's fatigue risk management system must contain, as a minimum:
 - (a) a fatigue risk management system policy;
 - (b) a fatigue risk management process;
 - (c) a safety assurance process; and
 - (d) a fatigue risk management system promotion process:

specified in Document NAM-CATS-OPS 127.

(3) An operator must designate a person responsible for the fatigue risk management system who meets the qualifications and experience requirements and who will be responsible for the functions specified in Document NAM-CATS-OPS 127.

- (4) A fatigue risk management system established in terms of subregulation (1) must –
 - (a) be based upon scientific principles, knowledge and operational experience with the aim of ensuring that flight crew and cabin crew members are performing at an adequate level of alertness; and
 - (b) be integrated with the safety management system.

Approval of fatigue risk management system

121.02.14 (1) An operator must submit to the Executive Director their proposed fatigue risk management system which complies with regulation 127.02.13(2).

(2) The Executive Director must approve the commencement of a trial phase for implementation of the proposed fatigue risk management system for a trial period of up to 36 months if the Executive Director is satisfied that the operator has complied with regulation 127.02.13(2).

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

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

(5) After a 24 months period an operator, approved under subregulation (2) may apply to the Executive Director for full approval by providing evidence that the fatigue risk management system is delivering the required safety outcomes.

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

Fatigue risk management system manual

121.02.15 (1) An operator must draw up a fatigue risk management system containing all the information required under this Part and publish the content in their operations manual as provided for in Document NAM-CATS-OPS 127.

SUBPART 3 TRAINING AND CHECKING

DIVISION ONE: GENERAL

Operator approved training and checking programme

127.03.1 (1) An operator must establish, implement and maintain a training and checking programme for all personnel referenced in Divisions One to Four of this Subpart that will ensure the personnel are adequately trained and qualified to perform their assigned duties and the personnel must undergo the training from that operator, except as provided in Document NAM-CATS-OPS 121.

(2) The training programme referred to in subregulation (1) must be conducted by an aviation training organisation approved in accordance with Part 141 or by the operator if approved by the Executive Director as provided in regulation 127.03.3 but if approved to be conducted by the operator –

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

(3) The training programme referred to in subregulation (1) must be approved by the Executive Director as provided in regulation 127.03.3.

- (4) An operator must ensure that –
- (a) prior to assignment to duty, each person required to receive training in accordance with this Subpart, must, whether employed on a full or part time basis, receive such training as appropriate to his or her duties;
 - (b) each person, receiving training in terms of subregulation (2) (a), must pass a written examination or other comprehension assessment acceptable to the Executive Director and where applicable, complete a skills test in accordance with Division five of this Subpart; and
 - (c) if training is provided in terms of subregulation (2) (a), the training facilities, equipment and personnel must be appropriate for the task to be performed and acceptable to the Executive Director and, in the case of training and checking personnel, their qualifications must meet the requirements specified in Document NAM-CATS-OPS 127.
- (5) The training and checking programme referred to in subregulation (1) must meet the content specified in Document NAM-CATS-OPS 127.
- (6) The training programme referred to in subregulation (1) must include a system of record keeping referred to in regulation 127.04.8.
- (7) The training records referred to in subregulation (6) must be retained as provided in regulation 127.04.8.

Publication of approved training programme

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

Approval of training programme

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

(2) The initial and final approval process must be as provided for in Document NAM-CATS-OPS 127.

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

DIVISION TWO: FLIGHT CREW MEMBER TRAINING

Flight crew member training

127.03.4 (1) An operator must provide ground and flight training, as applicable to the operator's flight crew personnel appropriate to the helicopter types, equipment and routes they operate that includes at least the following training components –

- (a) company induction training on an initial basis;

- (b) crew resource management training including human factors, crew coordination, risk analysis and error management training;
 - (c) emergency procedures training including –
 - (i) the location, inspection schedules, testing as applicable and use of all emergency equipment required to be carried, or otherwise carried on board the helicopter;
 - (ii) emergency evacuation, and where applicable ditching training; and
 - (iii) training in the functions for which each flight crew member is responsible and the coordination of these functions with the functions of other crew members, particularly in regard to abnormal or emergency procedures;
 - (d) initial helicopter type training if applicable, including visual, instrument and special flight procedures, crew co-ordination in all types of emergency situations, normal, abnormal, emergency and supplementary procedures for the type of helicopter assigned to, including situations and procedures associated with engine, transmission, rotor, airframe or systems malfunctions, fire or other abnormalities;
 - (e) recurrent training;
 - (f) upgrade training;
 - (g) differences and familiarisation training where the operator intends to assign a flight crew member to variant types, in accordance with regulation 127.02.7 (1) (b);
 - (h) pilot qualification to operate in either pilot seat;
 - (i) regaining recency and requalification training when required;
 - (j) area, route and aerodrome familiarisation training,
 - (k) dangerous goods training if dangerous goods are authorised to be carried, or dangerous goods awareness training if they are not;
 - (l) any other course of studies required by the Executive Director as provided for in Document NAM-CATS-OPS 127 to ensure full competency of personnel on new or special equipment installed in the operator's helicopter, or for operations requiring specialised training.
- (2) Except where noted in Document NAM-CATS-OPS 127, all training components listed in subregulation (1), must be provided on an initial and an annual recurrent basis and meet the requirements in Document NAM-CATS-OPS 127.
- (3) Each training element specified in subregulation (1) must include a suitable assessment of competence.

DIVISION THREE: TRAINING OF CABIN CREW MEMBERS

Initial training

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

Type and differences training

- 127.03.6** (1) A cabin crew member must complete a type training course when –
- (a) engaged by the operator as a cabin crew member; or
 - (b) assigned to act as a cabin crew member on another helicopter type.
- (2) An operator must ensure that each cabin crew member successfully completes the initial helicopter type training as provided for in Document NAM-CATS-OPS 127 before undertaking flight operations with the operator.
- (3) A cabin crew member must complete a differences training course when acting as a cabin crew member –
- (a) in a variant of the current helicopter type; or
 - (b) in a helicopter type with equipment, equipment location, or safety procedures which differ from the current helicopter type or variant.
- (4) An operator must 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 referred to in regulation 127.04.8.
- (5) An operator must ensure that –
- (a) type training is conducted in a structured manner, in accordance with the requirements in Document NAM-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.

Operator induction training

- 127.03.7** (1) An operator must ensure that each cabin crew member has completed the operator induction training, specified in the operations manual referred to in regulation 127.04.2, before undertaking duties assigned to them.
- (2) A cabin crew member must complete an operator induction training course upon initial engagement by the operator.
- (3) An operator induction training referred to in subregulation (1) must consist of the subject matter specified in Document NAM-CATS-OPS 127.

Familiarisation flights

- 127.03.8** An operator must ensure that upon completion of type training, differences training or requalification training, each cabin crew member undertakes familiarisation flights before acting as one of the minimum number of cabin crew members referred to in regulation 127.02.2.

Recurrent training

127.03.9 (1) An operator must 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 provided for in Document NAM-CATS-OPS 127.

(2) An operator must ensure that the recurrent training and checking programme syllabus includes the theoretical and practical instruction, as well as individual practice, as provided for in Document NAM-CATS-OPS 127.

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

Refresher and requalification training

127.03.10 (1) An operator must ensure that a cabin crew member who has not been absent from all flying duties, and has not acted as a cabin crew member on a particular helicopter type for a period of up to and including six months, completes –

- (a) requalification training in the helicopter type; or
- (b) two familiarisation flights during commercial air transport operations in such helicopter type,

before undertaking duties on the helicopter type.

(2) An operator must ensure that each cabin crew member who has been absent from all flying duties for more than six months completes the requalification training specified in the operations manual referred to in regulation 127.04.2 and as provided for in Document NAM-CATS-OPS 127.

DIVISION FOUR: TRAINING OF PERSONNEL OTHER THAN FLIGHT AND CABIN CREW MEMBERS**Training of personnel other than flight and cabin crew**

127.03.11 (1) An operator must provide initial, recurrent and requalification training and checking as provided for in Document NAM-CATS-OPS 127 for any person whose function is essential to safe operations in terms of this Part.

- (2) The training will be given to at least –
 - (a) flight operations officers and flight followers;
 - (b) ground service personnel whose function involves working in, on or around the operator's aeroplanes; and
 - (c) any other person considered necessary by the Executive Director.

DIVISION FIVE: TRAINING, CHECKING, CERTIFICATION AND VALIDITY**Training, checking, certification and validity periods**

127.03.13 (1) An operator must provide checks including an inflight proficiency line check or demonstration of competency as provided for in Document NAM-CATS-OPS 127.

(2) The issue of any certificate or other means of certifying competency must be as provided for in Document NAM-CATS-OPS 127.

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

(a) for flight crew members –

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

(b) for cabin crew members –

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

(c) for persons other than flight or cabin crew members –

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

(4) Where any required training, check or demonstration of competency is renewed within the last 60 days of its validity period, its validity period commences from the date of expiry of the previous training, check or demonstration of competency.

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

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

DIVISION SIX: AVIATION SECURITY TRAINING

Crew member aviation security training programmes

127.03.14 (1) An operator must establish and maintain approved initial and annual recurrent security training programmes which ensures crew members act in the most appropriate manner to minimize the consequences of acts of unlawful interference and as a minimum, this programme must include –

- (a) determination of the seriousness of any occurrence;
- (b) crew communication and coordination;
- (c) appropriate self-defence responses;
- (d) use of non-lethal protective devices assigned to crew members where use of such devices is approved by the Executive Director;
- (e) understanding of behaviour of terrorists so as to facilitate the ability of crew members to cope with hijacker behaviour and passenger responses;
- (f) live situational training exercises regarding various threat conditions;
- (g) flight crew compartment procedures to protect the helicopter; and
- (h) aeroplane search procedures and guidance on least-risk bomb locations where practicable.

Aviation security training programmes – other staff

127.03.15 An operator must establish and maintain a training programme to acquaint appropriate employees with preventive measures and techniques in relation to passengers, baggage, cargo, mail, equipment, stores and supplies intended for carriage on a helicopter so that they contribute to the prevention of acts of sabotage or other forms of unlawful interference.

SUBPART 4 DOCUMENTATION AND RECORDS

Documentary requirements

127.04.1 (1) An operator must ensure that, in addition to the requirements in regulation 91.03.1, the following documents are carried on board the helicopter during flight –

- (a) a copy of the operational flight plan; if applicable;
- (b) the special loads notification (notification to captain) if applicable;
- (c) the insurance certificate or proof of insurance;
- (d) a certified copy of the latest updated air operator certificate and operations specifications;
- (e) a mass and balance sheet referred to in regulation 127.04.9; and
- (f) a copy of the relevant portions of the aircraft operations manual referred to in regulation 127.04.2 applicable to the flight to be undertaken.

(2) In the case of any other operation than the ones referred to in subregulation (1) those documents must be available on the ground at the point of operation.

(3) An operator must ensure that the following documents are retained in a safe place at the first point of departure in respect of each flight undertaken by the helicopter –

- (a) a copy of the operational flight plan, if applicable;
- (b) copies of the relevant parts of the flight folio;
- (c) the mass and balance sheet referred to in regulation 127.04.9;
- (d) the passenger list or cargo manifest, if applicable;
- (e) the notification to captain, if applicable; and
- (f) a general declaration in the case of a helicopter engaged in international flights.

(4) Except when otherwise instructed by the Executive Director, the documents referred to in subregulation (3) must be retained at the operator's main base of operations, or other location if approved by the Executive Director, for a period of at least 90 days.

Operations manual

127.04.2 (1) An operator must 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 the operator is licensed in terms of the Act and the Air Services Act.

(2) An operator must ensure that –

- (a) the operations manual and supporting documentation provide adequate instructions to operations personnel in their particular duties and responsibilities and the relationship of such duties to the operation as a whole;
- (b) all parts of the operations manual are consistent and compatible in form and content and must not contravene the conditions contained in the air operator certificate or operations specifications issued to the operator in terms of regulation 127.06.3;
- (c) the manual can be readily amended;
- (d) the operations manual contains an amendment control page and a list of effective pages showing the effective date for each page in the operations manual; and
- (e) the operations manual has the date of the last amendment to each page specified on that page that agrees with the list of effective pages.

(3) An operator must submit the operations manual in the English language in duplicate to the Executive Director for approval.

(4) If the Executive 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 Act or the Air Services Act,

the Executive Director must certify in writing on both copies of the operations manual that the operations manual has been approved and must return one copy of the approved operations manual to the operator.

(5) An operator must amend its operations manual –

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

(6) An operator must submit an amendment to its operations manual in duplicate to the Executive Director for approval and if the Executive Director is satisfied that the operator will comply with subregulation (4), the Executive Director must certify in writing on both copies of the amendment to the approved operations manual that such amendment has been approved and must return one copy of the approved amendment to the operator.

(7) An operator must at all times operate its helicopters in accordance with the approved operations manual or an approved amendment to its approved operations manual.

(8) An operator must –

- (a) ensure that all operations personnel are able to understand the technical language used and that the information provided will ensure that such personnel are properly instructed in their particular duties and responsibilities and the relationship of such duties to the operation as a whole;
- (b) ensure that every flight is conducted in accordance with the operations manual and that those parts of the operations manual which are required for the conduct of a flight are easily accessible to the crew members on board during flight time;
- (c) make the operations manual available for the use and guidance of operations personnel;
- (d) provide the crew members with their own personal copy of the sections of the operations manual which are relevant to the duties assigned to them and designating such crew members as operations manual holders;
- (e) provide each operations manual holder with copies of all amendments after approval by the Executive Director and ensure that operations manual holders do insert the amendments issued to them prior to their next flight assignment; and
- (f) keep the operations manual in a safe place.

(9) The structure and contents of the operations manual referred to in subregulation (1) must be as provided for in Document NAM-CATS-OPS 127.

(10) An operator may provide the operations manual in an electronic format if a means of accessing the information during flight time is also made available to any crew member who may have need to access such information.

Aircraft operating manual

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

(2) The aircraft operating manual must be approved by the Executive Director and contain the information specified in Document NAM-CATS-OPS 127.

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

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

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

(6) The design of the manual must observe Human Factors principles.

Aircraft flight manual

127.04.4 (1) An operator must maintain and operate its helicopters in accordance with the approved aircraft flight manual required by regulation 91.03.2.

(2) An operator must maintain a system that ensures timely receipt and insertion of all aircraft flight manual revisions as published by the helicopter manufacturer or as required by the Executive Director.

(3) Where an operator provides an operations manual that meets the requirements of subregulation (2) an aircraft flight manual referred to in regulation 91.03.2 is not required to be carried on board the helicopter.

Operational flight plan

127.04.5 (1) An operator must ensure that an operational flight plan that meets the requirements in Document NAM-CATS-OPS 127 is completed for each flight undertaken by its helicopters in terms of this Part.

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

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

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

Flight time and duty period records

127.04.6 (1) An operator must –

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

(2) A flight crew member who is engaged by more than one operator or otherwise accumulates flight time outside of his or her employment, must maintain an accurate record of his or her flight time and duty periods and must provide copies of that record to all operators by whom the crew member is engaged.

(3) While a flight crew member is responsible to report all flight activity, each employer is responsible for ensuring that the crew member concerned does not exceed the limits specified in the flight time and duty scheme of the operator referred to in regulation 127.02.12.

Records of emergency and survival equipment

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

(2) The survival and emergency equipment list must 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 must be as specified in Document NAM-CATS-OPS 127.

Training records

127.04.8 (1) An operator must establish a training file for each person required to receive training and retain on the file a record of all training and checking required in terms of Subpart 3 and the records of training and checking must contain at least the information specified, and be retained for the period of time specified, in Document NAM-CATS-OPS 127.

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

Mass and balance sheet

127.04.9 (1) An operator operating helicopters subject to the provisions of this Part must ensure that no flight is undertaken by the helicopter unless the person superintending the loading of such helicopter has completed and certified a mass and balance sheet.

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

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

(4) The minimum contents of a mass and balance sheet must be as provided for in Document NAM-CATS-OPS 127.

Fuel and oil records

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

Helicopter search procedure checklist

127.04.11 (1) An operator must ensure that there is on board its helicopters a checklist of the procedures to be followed in searching for a bomb in case of suspected sabotage and for inspecting helicopters for concealed weapons, explosives or other dangerous devices when a well-founded suspicion exists that the helicopter may be the object of an act of unlawful interference.

(2) The checklist referred to in subregulation (1) must be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the helicopter where such information is available from the manufacturer, including, where appropriate, any means of attenuating and directing the blast for use at the least-risk bomb location.

Preservation of documents

127.04.12 (1) An operator must retain any document required in terms of this Subpart for the period of time specified in this Subpart even where, prior to the expiry of the retention period, the operator ceases to maintain ownership or possession of the helicopter concerned or employ the personnel concerned.

(2) Completed flight preparation forms must be kept by the operator for a period of 90 days.

SUBPART 5 HELICOPTER INSTRUMENTS AND EQUIPMENT

Approval and use of instruments and equipment

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

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

(2) Except as provided in subregulation (1)(b) and subregulation (4), a person may not conduct a take-off in a helicopter with instruments or equipment that are not serviceable or that have been removed, where such instruments or equipment are required by –

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

- (c) an air operator certificate;
 - (d) an airworthiness directive; or
 - (e) these regulations.
- (3) An operator must 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 91.04.13;
 - (e) megaphones referred to in regulation 91.04.21;
 - (f) survival equipment referred to in regulation 91.04.24 and 91.04.25; and
 - (g) sea anchors and equipment for the mooring, anchoring or manoeuvring of amphibious helicopters on water, referred to regulation 91.04.27.
- (4) A person may conduct a take-off in a helicopter that has instruments or equipment that are not serviceable or that have been removed where the helicopter is operated in accordance with the conditions of a flight permit that has been issued by the Executive Director specifically for that purpose.
- (5) A person may not conduct a take-off in a helicopter for which a minimum equipment list has not been approved and the helicopter has instruments and equipment, other than the instruments and equipment specified in subregulation (2), that are not serviceable or that have been removed unless –
- (a) where the unserviceable instrument or equipment is not removed from the helicopter, it is isolated or secured so as not to constitute a hazard to any other helicopter system or to any person on board the helicopter;
 - (b) the appropriate placards are installed as required by the maintenance control manual; and
 - (c) an entry recording the actions referred to in paragraphs (a) and (b) is made in the flight folio, as applicable.

Flight, navigation and associated equipment for helicopters operated under visual flight rules

127.05.2 (1) An operator may not operate the helicopter in accordance with visual flight rules by day, unless such helicopter is equipped with –

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

- (d) an airspeed indicator;
 - (e) a vertical speed indicator and an attitude indicator if operated at night but a helicopter with a maximum certificated take-off mass of 2 730 kilogrammes or less, does not have to comply with this requirement;
 - (f) a stabilised direction indicator if operated at night; and
 - (g) a means of indicating in the flight crew compartment the outside air temperature in degrees Celsius.
- (2) An operator may not operate the helicopter in accordance with visual flight rules by night, unless such helicopter is equipped with –
- (a) the equipment specified in subregulation (1);
 - (b) an attitude indicator (artificial horizon) for each required pilot and one additional attitude indicator;
 - (c) a slip indicator;
 - (d) a heading indicator (directional gyroscope or approved equivalent); and
 - (e) a vertical speed indicator.
- (3) If in terms of these regulations, other than for training or testing, or in terms of the type certificate of the helicopter two pilots are required to operate a helicopter, the second pilot's station must 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 Executive Director indicator.
- (4) A helicopter being operated in terms of subregulation (2) in accordance with visual flight rules by night –
- (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,

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

Flight, navigation and associated equipment for helicopters operated under instrument flight rules

127.05.3 (1) An operator may not operate a helicopter in accordance with instrument flight rules, unless the helicopter is equipped with –

- (a) a magnetic compass;
- (b) an accurate time-piece on board indicating the time in hours, minutes and seconds;
- (c) two sensitive pressure altimeters with subscale settings, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight;
- (d) in the case of a helicopter having a maximum certificated mass exceeding 3 180 kilogrammes or a maximum passenger seating configuration of more than nine seats, a radio altimeter with an audio warning operating below a pre-set height and a visual warning capable of operating at a height selectable by the pilot;
- (e) an airspeed indicator system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing, including a warning indicator of pitot heater failure;
- (f) a vertical-speed indicator;
- (g) a turn-and-slip indicator or instead an additional attitude indicator powered by a power source separate from that of the main attitude indicator;
- (h) an attitude indicator;
- (i) a single standby attitude indicator, capable of being used from either pilot's station, which –
 - (i) is powered continuously during normal operation and, after a total failure of the normal electrical generating system, is powered from a source independent of the normal electrical generating system;
 - (ii) provides reliable operation for a minimum of 30 minutes after total failure of the normal electrical generating system, taking into account other loads on the emergency power supply and operational procedures;
 - (iii) operates independently of any other attitude indicating system;
 - (iv) is operative automatically after total failure of the normal electrical generating system; and
 - (v) is appropriately illuminated during all phases of operation:but if the standby attitude instrument system is capable of being used through flight attitudes of 360° of pitch and roll, the turn-and-slip indicators may be replaced by slip indicators;
- (j) a stabilised direction indicator;
- (k) a means of indicating in the flight crew compartment the outside air temperature in degrees Celsius;

- (l) an alternate source of static pressure for the altimeter and the airspeed and vertical speed indicators;
- (m) a chart holder in an easily readable position which can be illuminated, if to be operated by night;
- (n) a means of indicating whether the electrical or pneumatic power supply to a gyroscope instrument is adequate;
- (o) a stabilisation system, unless it has been demonstrated to the satisfaction of the certificating authority that the helicopter possesses, by nature of its design, adequate stability without such a system; and
- (p) for helicopters with maximum certificated take-off mass in excess of 3 175 kilogrammes or a maximum passenger seating configuration of more than 9, a ground proximity warning system which has a forward-looking terrain avoidance function.

(2) An operator may not operate a helicopter in accordance with instrument flight rules , unless such helicopter is certified for instrument meteorological conditions operations and equipped with an emergency power supply, independent of the main electrical generating system, for the purpose of operating and illuminating, for a minimum period of 30 minutes, an attitude indicating instrument (artificial horizon), clearly visible to the pilot-in-command and the emergency power supply must be automatically operative after the total failure of the main electrical generating system and clear indication must be given on the instrument panel that the attitude indicator(s) is being operated by emergency power.

(3) An operator may not operate a helicopter in instrument meteorological conditions or in accordance with instrument flight rules while carrying passengers unless such helicopter is a multi-engine helicopter and equipped with –

- (a) a power-failure warning device or vacuum indicator to show the power available for gyroscopic instruments from each power source;
- (b) two independent sources of energy (with means of selecting either), of which at least one is an engine-driven pump or generator, which are both able to drive all required gyroscopic instruments powered by, or to be powered by, that particular source and installed in such a manner that failure of one instrument or source does not interfere with the energy supply to the remaining instruments or the other energy source except where the rate-of-turn indicator of a single-engine helicopter involved in all-cargo operations only, has a source of energy separate from the bank and pitch and direction indicators and for the purpose of this subregulation, each engine-driven source of energy of a multi-engine helicopter must be on a different engine; and
- (c) at least two generators or alternators of which any combination of one-half of the total number are rated sufficiently to supply the electrical loads of all required instruments and equipment necessary for safe emergency operation of the helicopter (both units may be mounted on the main rotor drive train); and
- (d) either airborne weather radar equipment or other equipment, approved by the Executive Director, capable of detecting thunderstorms and other potentially hazardous weather conditions.

(4) If two pilots are required to operate the helicopter, other than for training or testing, the second pilot's station must 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 instead an additional attitude indicator powered by a power source separate from that of the main attitude indicator;
 - (e) an altitude indicator; and
 - (f) a stabilised direction indicator.
- (5) In complying with subregulation (1)(i) it must be clearly evident to the flight crew members when such standby attitude indicator is being operated by emergency power.
- (6) Where the standby attitude indicator referred to in subregulation (1)(i) has its own dedicated power supply, there must be an associated indicator, either on the instrument or instrument panel, when such power supply is in use.
- (7) When a helicopter is operated with a single pilot in terms of regulation 127.02.1 (7) while carrying passengers at night or in instrument meteorological condition, the helicopter must furthermore be equipped with –
- (a) instrument flight rules -approved area navigation equipment that provides immediate identification and heading to the nearest suitable diversion;
 - (b) an approved stability augmentation or automatic flight control management system; and
 - (c) if the helicopter is fitted with a turbine engine –
 - (i) an auto-ignition system or use of continuous ignition during take-off, landing and flight during heavy precipitation; and
 - (ii) a manual throttle that bypasses the governing section of the fuel control unit, and permits continued unrestricted operation of the engine in the event of a fuel control unit failure.

Airborne weather radar equipment

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

Flight crew interphone system

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

Crew interphone system

127.05.6 (1) An operator of a helicopter with a maximum approved passenger seating configuration of 20 or more seats, may not operate the helicopter unless such helicopter is equipped with a crew interphone system.

- (2) The crew interphone system must –
- (a) operate independently of the public address system referred to in regulation 127.05.7 except for handsets, microphones, selector switches and signalling devices;
 - (b) provide a means of two-way communication between the flight crew compartment and each passenger compartment;
 - (c) be readily accessible for use from each of the required crew stations in the flight crew compartment;
 - (d) be readily accessible for use at the required cabin crew stations close to each emergency exit;
 - (e) have an alerting system incorporating aural or visual signals for use by flight crew members to alert the cabin crew and for use by cabin crew to alert the flight crew;
 - (f) have a means for the recipient of a call to determine whether it is a normal call or an emergency call; and
 - (g) provide on the ground a means of two-way communication between ground personnel and at least one flight crew member, if the design of the helicopter requires such interphone system.

Public address system

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

- (2) The public address system must –
- (a) operate independently of the interphone systems referred to in regulations 127.05.5 and 127.05.6, except for handsets, microphones, selector switches and signalling devices;
 - (b) be readily accessible for immediate use from each required flight crew member station;
 - (c) be readily accessible for use from at least one cabin crew station in the cabin;

- (d) in the case of a public address system microphone intended for cabin crew use, be positioned adjacent to a cabin crew seat located near each required emergency exit in the passenger compartment;
- (e) be capable of operation within 10 seconds by a cabin crew member at each of those stations in the compartment from which the use of such public address system is accessible;
- (f) be audible and intelligible in all phases of flight at all passenger seats, toilets and cabin crew seats and stations;
- (g) be powered continuously during normal operation; and
- (h) provide reliable operation for at least 10 minutes, following a total failure of the normal electrical generating system.

Life jackets and other flotation devices

127.05.8 (1) Regulations 91.04.23 to 91.04.26, both inclusive, apply with the necessary changes to helicopters operated in terms of this Part.

(2) Despite regulation 91.04.23 (1)(c), a Class 2 or Class 3 helicopter, operated in terms of this Part must, where any portion of the flight including the take-off or approach path is so disposed over water that in the event of a mishap there would be the likelihood of a ditching, be equipped with one life jacket or equivalent flotation device for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided.

(3) Despite regulation 91.04.23 (2)(b) and (c), a Class 1 or Class 2 helicopter, operated in terms of this Part, must be equipped with the equipment specified in regulation 91.04.24 whenever the helicopter is operated over water at such a distance that, in the event of a mishap there would be the likelihood of a ditching.

(4) Despite subregulation (2), helicopters operating in performance Class 3 when operating off shore or over water beyond autorotational or safe forced landing distance from land, must comply with regulation 91.04.24.

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

(6) The contents of the life rafts are specified in regulation 91.04.24.

(7) On any helicopter for which the individual certificate of airworthiness was first issued on or after 1 January 1991, at least 50 percent of the life rafts carried must be deployable by remote control and the remainder, where they have a mass greater than 40 kilogrammes, must be equipped with some means of mechanically assisted deployment

(8) On any helicopter where two life rafts are fitted, each must be able to carry all occupants in a design overload state of 1.5 times the maximum capacity.

Survival suits

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

- (a) the water temperature will be less than 10°C during the flight; or
- (b) the estimated rescue time exceeds the calculated survival time, taking into consideration the sea state and the ambient light conditions,

unless each person on board is wearing a survival suit as specified in NAM-CATS-OPS 127 but this regulation does not apply to the flight crew where an operator received the prior written approval of the Executive Director to operate without such survival suits, for the reason that the elevation and strength of the sun results in a high temperature hazard in the flight crew compartment.

Cabin attendant seats

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

Emergency locator transmitters

127.05.11 (1) An operator may not operate a helicopter, classified as a performance Class 1 or 2 helicopter, in offshore operations or over water more than 30 minutes at normal cruising speed or 50 nautical miles, whichever is the lesser, away from land unless such helicopter is equipped with at least one automatic emergency locator transmitter and one survival emergency locator transmitter in a raft or life jacket.

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

(3) The survival emergency locator transmitters required by this regulation must meet the requirements in Document NAM-CATS-OPS 91.

Microphones

127.05.12 All flight crew members required to be on flight crew compartment duty must communicate through boom or throat microphones.

Passenger cabin signs and placards

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

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

- (e) of the location and method of opening of emergency exits.

Flight recorders

127.05.14 (1) Part 91 applies with the necessary changes to helicopters operated in terms of this Part, but for purposes of this Part any reference to international general aviation operations is considered additionally to be a reference to domestic offshore operations.

(2) An operator may not allow the use of recordings or transcripts of cockpit voice recorder, cockpit audio recording system, Class A airborne image recorder and Class A airborne image recording system for purposes other than the investigation of an accident or incident except where the recordings or transcripts –

- (a) are related to a safety-related event identified in the context of an safety management system, are restricted to the relevant portions of a de-identified transcript of the recording, and are subject to the protections specified by the operator's safety management system;
- (b) are sought for use in criminal proceedings not related to an event involving an accident or incident investigation and are subject to the protections accorded by the safety management system and specified by the regulations relating to investigation of aircraft accidents and incidents; or
- (c) are used for inspections of flight recorder systems as provided for by regulation 91.04.10.

(3) An operator may not allow the use of recordings or transcripts of flight data recorder, aircraft data recording system as well as Class B and Class C airborne image recorder and airborne image recording system for purposes other than the investigation of an accident or incident in accordance with the regulations relating to investigation of aircraft accidents and incidents, except where the recordings or transcripts are subject to the protections accorded by the operator's safety management system and –

- (a) are used by the operator for airworthiness or maintenance purposes;
- (b) are used by the operator in the operation of a flight data analysis programme;
- (c) are sought for use in proceedings not related to an event involving an accident or incident investigation;
- (d) are de-identified; or
- (e) are disclosed under secure procedures.

First-aid and universal precaution kits

127.05.15 (1) An operator may not operate a helicopter unless such helicopter is equipped with a first-aid kit consisting of the medical supplies as provided for in Document NAM-CATS-OPS 127.

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

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

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

(5) No operator of a helicopter for which the maximum certificated passenger seating is 20 or more and on which is carried a cabin crew member must operate such helicopter unless it is equipped with the universal precaution kit specified in Document NAM-CATS-OPS 127.

Pressure-altitude reporting transponder

127.05.16 Subject to provisions for the carriage of transponders as provided for by State and airspace requirements, all helicopters must be equipped with a pressure-altitude reporting transponder.

Vibration health monitoring system

127.05.17 A helicopter which has a maximum certificated take-off mass in excess of 3 175 kilogrammes or a maximum passenger seating configuration of more than nine should be equipped with a vibration health monitoring system.

Electronic navigation data management

127.05.18 (1) An operator may not employ electronic navigation data products that have been processed for application in the air and on the ground unless the Executive Director has approved the operator's procedures for ensuring that the process applied and the products delivered have met acceptable standards of integrity and that the products are compatible with the intended function of the equipment that will use them.

(2) An operator must implement procedures that ensure the timely distribution and insertion of current and unaltered electronic navigation data to all aircraft that require it.

(3) The Executive Director must ensure that the operator continues to monitor both process and products.

(4) An operator's procedures for ensuring the integrity and compatibility of navigation products must be in accordance with NAM-CATS-OPS 121.05.26.

SUBPART 6 AIR OPERATOR CERTIFICATE

Requirement to hold air operator certificate

127.06.1 An operator may not operate a helicopter in terms of this Part unless the operator is the holder of, and complies with the conditions of, a valid air operator certificate including the operations specifications attached to that certificate, and the relevant air services licence issued in terms of the Air Services Act.

Application for issue or amendment of an air operator certificate and operations specifications

127.06.2 An application for, and the requirements pertaining to, the issue or amendment of an air operator certificate or operations specifications must be as specified in regulation 121.06.2,

wherein for the purposes of this regulation the term “helicopter” must be substituted for the term “aeroplane”.

Application for, consideration of and issue of air operator certificate or operations specifications

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

(2) An application must be granted and the air operator certificate issued, containing such conditions as the Executive Director determines, if the Executive Director is satisfied that –

- (a) the applicant will comply with its air operator certificate and operations specifications; and
- (b) the applicant will not operate the air service concerned contrary to any provision of the Act and the Air Services Act.

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

(4) An air operator certificate and associated operations specifications must be issued in a form approved by the Executive Director and contain at least the information specified in Document NAM-CATS-OPS 127.

Validity and status of air operator certificate

127.06.4 (1) Unless otherwise specified by the Executive Director, an air operator certificate remains valid and in force for an indefinite period but –

- (a) the operator must submit on or before the anniversary date of initial issue, the appropriate annual fee specified in Part 187;
- (b) the operator must have satisfactorily –
 - (i) responded to the audits and inspections carried out by the Executive Director; and
 - (ii) resolved any findings reported to the operator by the Executive Director;
- (c) the air operator certificate must not have been suspended, cancelled or voluntarily returned to the Executive Director; and
- (d) the operator must continue to meet the requirements for issue of an air operator certificate.

(2) An air operator certificate is not transferable to any other entity.

(3) Where an operator is notified by the Executive Director that its air operator certificate has been suspended or cancelled, the operator must return the air operator certificate to the Executive Director within seven days of such notification.

Safety and security inspections and audits

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

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

Administrative duties of air operator certificate holder

127.06.6 (1) The holder of an air operator certificate must keep the air operator certificate in a safe place and produce the air operator certificate to an authorised officer, inspector or authorised person for inspection if so requested by the officer or inspector.

(2) An operator must notify the Executive Director of any intended change in the personnel occupying a management position specified in regulation 127.06.2(5) and must submit the names and qualifications of a replacement person for the Executive Director's approval before effecting the change but in the case of a sudden departure of an incumbent, an operator must notify the Executive Director of its plan to ensure safety of operations while replacing the person.

(3) An operator must notify the Executive Director in the event of any change in the ownership of the operator, including the names and contact details of the new owners.

Register of air operator certificates

127.06.7 (1) The Executive Director must maintain a register of all air operator certificates issued in terms of these regulations.

(2) The register must contain the following particulars:

- (a) the full name and, if any, the business name of the holder of the air operator certificate;
- (b) the postal address of the holder of the air operator certificate;
- (c) the number of the air operator certificate issued to the holder;
- (d) particulars of the type of air service for which the air operator certificate was issued, including a list of operations specifications issued;
- (e) particulars of the category of helicopter for which the air operator certificate was issued; and
- (f) the date on which the air operator certificate was issued.

(3) The particulars, referred to in subregulation (2), must be recorded in the register within 30 days from the date on which the air operator certificate is issued by the Executive Director.

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

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

Demonstration flights

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

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

Foreign air operator certificates

127.06.9 (1) The Executive Director must recognise as valid an air operator certificate issued by another Contracting State, but the requirements under which the certificate was issued must be at least equal to the applicable standards specified in ICAO Annex 6 and Annex 19.

(2) The Executive Director must establish a programme with procedures for the surveillance of operations in Namibian territory by foreign operators and for taking appropriate action when necessary to preserve safety.

(3) A foreign operator conducting operations in Namibia must meet and maintain any requirements established by the Executive Director.

SUBPART 7 FOREIGN AIR OPERATOR PERMIT

Requirement for foreign air operator permit

127.07.1 (1) A foreign operator may not operate a foreign registered aeroplane engaged in international commercial air transport operations to, from or within Namibia, except under the authority of, and in accordance with the conditions of, a foreign air operator permit issued under this Subpart.

(2) Transportation of passengers, cargo or mail within Namibia by a foreign operator may only be undertaken as provided for in NAM-CATS- 121.

Application for foreign air operator permit or amendment of foreign air operator permit

127.07.2 (1) An application for the issue of a foreign air operator permit must be –

- (a) made to the Executive Director in the appropriate form set out in Document NAM-CATS-OPS 127; and
- (b) accompanied by –
 - (i) a declaration of competency issued in respect of each helicopter concerned;
 - (ii) a copy of the valid air operator certificate or equivalent authorisation held by the applicant, which pertains to the operation covered by the application;
 - (iii) the appropriate fee specified in Part 187; and
 - (iv) a statement certifying the availability of insurance in respect of the obligations and liabilities of the applicant which may arise from the operation covered by the application.

(2) Subject to subregulation (5), an application for the issue of a foreign air operator permit must be submitted to the Executive Director at least 90 days before the date of commencement of the intended operation.

- (3) If the holder of a foreign air operator permit wishes to amend –
- (a) its name or principal place of business;
 - (b) the description of the type of operation;
 - (c) the type of helicopter;
 - (d) the nationality and registration marks of the helicopters;
 - (e) the area of operation; or
 - (f) any condition,

specified on the permit, such operator must apply to the Executive Director for such amendment.

- (4) An application for the amendment of a foreign air operator permit must be –
- (a) made on the form specified in Document NAM-CATS-OPS 127; and
 - (b) accompanied by –
 - (i) a declaration of competency issued in respect of each helicopter concerned;
 - (ii) a copy of the valid air operator certificate or equivalent authorisation held by the applicant, which pertains to the operation covered by the application;
 - (iii) the appropriate fee specified in Part 187; and
 - (iv) a statement certifying the availability of insurance in respect of the obligations and liabilities of the applicant which may arise from the operation covered by the application.

(5) Subject to subregulation (5), an application for the amendment of a foreign air operator permit must be submitted to the Executive Director at least 30 days before the date of commencement of the intended amended operation.

(6) The Executive Director may condone a shorter period within which an application referred to in subregulation (1) or (3), as the case may be, is received, if the Executive Director is satisfied that the object of the operation or amended operation will be defeated if such application is not adjudicated within the shorter period.

Assessment of application and issue of permit

127.07.3 (1) In considering the application for the issue of a foreign air operator permit, or an amendment of a foreign air operator permit, the Executive Director may conduct the investigation which he or she considers necessary.

(2) The application must be granted and the permit issued the Executive Director is satisfied that –

- (a) the applicant has the financial capability of conducting a safe operation within Namibia; and
- (b) the applicant will not conduct the operation concerned contrary to any provision of the Act or the Air Services Act.

(3) If the Executive Director is not satisfied with the application for a foreign air operator permit, the Executive Director must in writing notify the applicant and state the reasons for his or her dissatisfaction with the application, and the Executive Director must grant the applicant an opportunity to rectify or supplement the defect within the period determined by the Executive Director, after which period the Executive Director must grant or refuse the application.

(4) A foreign air operator permit must be issued on the form set out in Document NAM-CATS-OPS 127, under such conditions which the Executive Director may determine.

- (5) A foreign air operator permit must specify –
- (a) the name, nationality and principal place of business of the operator;
 - (b) the date on which the permit was issued and its period of validity;
 - (c) a description of the type of operation authorised;
 - (d) the type of helicopter authorised for operation;
 - (e) the nationality and registration marks of each helicopter authorised for operation;
 - (f) the authorised area of operation; and
 - (g) the conditions of the permit.

Period of validity

127.07.4 (1) A foreign air operator permit is valid –

- (a) for the period determined by the Executive Director, which period must not exceed 12 months, calculated from the date of issue of the permit;
- (b) for the number of flights determined by the Executive Director; or
- (c) for the number of flights, which have to be undertaken within the period, determined by the Executive Director.

(2) If the holder of a foreign air operator permit applies at least 30 days prior to the expiry of the permit, for the renewal of the permit, such permit must, despite subregulation (1), remain valid until such holder is notified by the Executive Director of the result of the application for the renewal of such permit.

(3) The permit must remain in force until it expires or is suspended by an authorised officer, inspector or authorised person, or cancelled by the Executive Director, in terms of regulation 127.07.9.

(4) The holder of a permit which expires, must forthwith surrender the permit to the Executive Director.

(5) The holder of a permit which is suspended, must forthwith produce the permit to the authorised officer, inspector or authorised person concerned for the appropriate endorsement.

(6) The holder of a permit which is cancelled, must, within 30 days from the date on which the permit is cancelled, surrender the permit to the Executive Director.

Transferability

127.07.5 A foreign air operator permit must not be transferable.

Duties of holder of permit

127.07.6 (1) The holder of a foreign air operator permit must –

(a) at all times during the operation within Namibia –

(i) comply with –

(aa) the appropriate requirements in this Part; and

(bb) the conditions of the permit;

(ii) hold a valid air operator certificate or equivalent authorisation; and

(b) produce the permit to an authorised officer, inspector or authorised person for inspection, if so requested by such officer, inspector or person.

Renewal of permit

127.07.7 (1) The holder of a foreign air operator permit must at least 30 days immediately preceding the date on which the permit expires, apply for the renewal of the permit.

(2) Regulations 127.07.2(1) and 127.07.3 apply with the necessary changes to an application made in terms of this regulation.

Safety inspections and audits

127.07.8 The holder of a foreign air operator permit must permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits, including safety inspections and audits of its partners or subcontractors, which may be necessary to determine compliance with the appropriate requirements specified in this Part.

Suspension, revocation and variation of air operator certificate and foreign air operator permit

127.07.9 An air operator certificate or a foreign air operator permit may in accordance with regulation 13.01.4 be suspended, revoked or varied if the Executive Director is no longer satisfied that the operator can maintain an adequate organisation to ensure safe operations.

Register of permits

127.07.10 (1) The Executive Director must maintain a register of all foreign air operator permits issued, amended or renewed in terms of the regulations in this Subpart.

(2) The register must contain the following particulars:

(a) The full name of the holder of the permit;

- (b) the postal address of the holder of the permit;
 - (c) the telephone and telefax numbers of the holder of the permit;
 - (d) the date on which the permit was issued, amended or renewed;
 - (e) the number of the permit issued, amended or renewed;
 - (f) the conditions of the permit;
 - (g) the nationality of the holder of the permit; and
 - (h) the date on which the permit was suspended, if applicable.
- (3) The particulars referred to in subregulation (2) must be recorded by the Executive Director in the register within seven days from the date on which the permit was issued, amended, renewed or cancelled, as the case may be.
- (4) The register must be kept in a safe place at the office of the Executive Director.
- (5) A copy of the register must be furnished by the Executive Director, on payment of the appropriate fee specified in Part 187, to any person who requests the copy.

SUBPART 8 FLIGHT OPERATIONS

DIVISION ONE: GENERAL

Routes and areas of operation and aerodrome facilities

- 127.08.1** (1) An operator operating in terms of regulation 127.01.1, must ensure that operations are only conducted along such routes for which –
- (a) it has been ascertained by every reasonable means available that the ground or water facilities and services, including meteorological services, are available as required for the safe operation of the helicopter and the protection of the passengers, are adequate for the type of operation being conducted and are functioning normally for their intended purpose;
 - (b) appropriate maps and charts are available.
- (2) An operator must ensure that operations are only conducted within such areas and along such routes for which approval or authorisation has been obtained, where required, from the appropriate authority concerned.
- (3) An operator must ensure that –
- (a) the performance of the helicopter intended to be used is adequate to comply with minimum flight altitude requirements; and
 - (b) the equipment of the helicopter intended to be used complies with the minimum requirements for the planned operation.
- (4) An operator must operate all flights in accordance with such route, aerodrome or other approvals and conditions pertaining to flight operations as are contained in the air operator certificate.

(5) An operator must report without delay to the responsible authority any observed operational inadequacy of facilities referred to in subregulation (1)(a).

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

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

(8) An operator must select at least one destination alternate aerodrome and specify it in the operational flight plan for each instrument flight rules flight unless –

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

(9) An operator must select at least two destination alternate aerodromes for each instrument flight rules flight and specify them in the operational flight plan when –

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

(10) For offshore operations as provided in regulation 127.08.8, the operator must select suitable offshore alternates and specify each in the operational flight plan for each instrument flight rules flight as provided in Document NAM-CATS-OPS 127.

(11) An operator may not permit, and a pilot-in-command may not operate, a flight that is to be conducted in accordance with instrument flight rules for which one or more destination alternate aerodromes are required, to be commenced unless the aerodrome meteorological forecast indicates that conditions for a period of at least one hour before until one hour after the estimated time of arrival at the destination alternate aerodrome(s) will meet or exceed those specified in Document NAM-CATS-OPS 127.

Establishment of procedures

127.08.2 (1) An operator must –

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

operating procedures in the flight manual and other documents associated with the certificate of airworthiness, and 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.
- (2) The approved checklist system referred to in subregulation (1) (b) must be designed and used in accordance with human factors principles and must include –
- (a) an easy-to-use checklist for normal phases of flight operations;
 - (b) a quick reference-type checklist dealing with all malfunctions requiring the use of abnormal or emergency procedures;
 - (c) an amplified checklist that ensures all referenced check items are dealt with in accordance with the helicopter manufacturer's recommended procedures;
 - (d) an easy to locate and employ system of supplementary checks and/or procedures, if applicable; and
 - (e) any other check items relating to the use of equipment not installed at the time of helicopter manufacture or not included in the check system provided for in the approved helicopter flight manual.
- (3) The pilot-in-command must be responsible for ensuring all check procedures, including checklists, are managed in accordance with the procedures specified in the operator's operations manuals.

Hazardous flight conditions and unlawful interference

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

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

Competence of operations personnel

127.08.4 An operator must 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

127.08.5 An operator must ensure that air traffic services are used for all flights whenever available.

Minimum flight altitudes

127.08.6 (1) An operator must establish minimum flight altitudes for all operations carried out in accordance with instrument flight rules and the methods to determine such minimum flight altitudes for all route segments to be flown which provide the required terrain clearance, taking into account the performance operating limitations referred to in Subpart 8 of this Part and the minimum levels specified in regulation 91.06.37.

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

(3) An operator must specify in its operations manual the procedures used to determine the minimum flight altitudes to be flown in order to meet the obstacle clearance requirements specified in regulation 91.06.37 (3).

Aerodrome operating minima

127.08.7 (1) For operations under instrument flight rules, the operator must establish aerodrome operating minima in accordance with subregulations (2), (3) and (4) and in conjunction with the instrument approach and landing charts for each aerodrome and aerodrome intended to be used either as destination or alternate aerodrome.

(2) An operator must establish aerodrome operating minima for each aerodrome planned to be used, which must not be lower than the values specified in regulation 91.07.5.

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

(4) The aerodrome operating minima established by the operator must not be lower than any aerodrome operating minima established by the appropriate authority of the State in which the aerodrome is located but if the appropriate authority approves such lower aerodrome operating minima established by the operator, the higher aerodrome operating minima applies.

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

(6) Category II and Category III instrument approach operations must not be authorised unless runway visual range information is provided.

(7) An operator must ensure that a flight must not be continued towards the aerodrome of intended landing, unless the latest available information indicates that at the expected time of arrival, a landing can be effected at that aerodrome or at least one destination alternate aerodrome, in compliance with the published operating minima.

(8) An operator must ensure compliance with the requirements for approach ban, required under regulation 91.07.26.

Offshore operations

127.08.8 (1) The Executive Director must issue a specific approval for the operational use of offshore destination and offshore destination alternate heliports.

(2) To obtain approval referred to in subregulation (1) an operator must submit an application to the Executive Director and must demonstrate compliance with the requirements in NAM-CATS-OPS 127.

- (3) An operator must ensure that, in the case of flights over water –
- (a) the shore base or other flight-monitoring station must maintain a means of flight monitoring with the helicopter as approved by the Executive Director;
 - (b) a full complement of crew members to operate the helicopter and its safety equipment under normal, abnormal or emergency conditions is carried on board; and
 - (c) the helicopter is equipped for flights over water in terms of these regulations.
- (4) An operator must ensure that, in the case of a single-reciprocating-engine helicopter –
- (a) other than an amphibian helicopter or a helicopter with approved flotation gear flights must be limited to five nautical miles seaward from base; and
 - (b) no flights must be undertaken except by day and under visual meteorological conditions and no flight must be commenced which cannot be completed at least one hour before night.
- (5) An operator must ensure that, in the case of a single-turbine-engine helicopter –
- (a) other than an amphibian helicopter or a helicopter with approved flotation gear flights must be limited to 50 nautical miles seaward from base;
 - (b) no flights must be undertaken except by day and under visual meteorological conditions;
 - (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.
- (6) An operator must ensure that, in the case of multi-engine helicopters, subregulation (2) is complied with and, in addition, if a flight is to be undertaken by night or under instrument meteorological conditions, that –
- (a) the helicopter is equipped for instrument flight rules operations; and
 - (b) functioning area or on-board navigation aids are available.
- (7) An operator may not, when planning flight for over-water operations, consider off-shore alternates when it is possible to carry enough fuel to plan for an on-shore alternate landing site but off-shore alternate landing sites may be considered in exceptional circumstances, where

approved by the Executive Director, for purposes other than for landing and for the purpose of payload enhancement in adverse weather conditions.

(8) A helideck may be specified as an offshore destination alternate heliport when the closest onshore destination alternate is not within achievable range of the helicopter and the specification is subject to the following conditions:

- (a) a helideck must only be used as an offshore destination alternate heliport after the point of no return and when an onshore aerodrome is not geographically available and prior to the point of no return, an onshore destination alternate aerodrome must be used;
- (b) the operator must have a risk assessment process detailed in the operations manual for the utilization of helidecks as offshore destination alternate heliports and conduct such an assessment prior to their selection and use;
- (c) the operator has established specific procedures and appropriate training programmes in the operations manual for offshore destination alternate heliport operations;
- (d) the operator must have pre-surveyed, and assessed for suitability, any helideck intended to be used as an offshore destination alternate heliport and with the information published in an appropriate form in the operations manual (including the orientation of the helideck);
- (e) the helicopter must have a one engine inoperative landing capability at the offshore alternate heliport; and
- (f) the minimum equipment list must contain specific provisions for this type of operation.

(9) The use of an offshore alternate heliport should be restricted to helicopters which can achieve one engine inoperative in ground effect hover at an appropriate power rating at the offshore alternate heliport.

(10) Where the surface of the helideck, or prevailing conditions, especially wind velocity, precludes a one engine inoperative in ground effect, one engine inoperative out of ground effect hover performance at an appropriate power rating should be used to compute the landing mass.

(11) The landing mass should be calculated from graphs provided in the operations manual and when calculating this landing mass, due account should be taken of helicopter configuration, environmental conditions and the operation of systems that have an adverse effect on performance.

(12) The planned landing mass of the helicopter, including crew, passengers, baggage, cargo and 30 minutes final reserve fuel, should not exceed the one engine inoperative landing mass at the time of approach to the offshore alternate heliport.

(13) The operator's risk assessment process must take into consideration at least the following:

- (a) the type and circumstances of the operation;
- (b) the area over which the operation is being conducted, including sea conditions, survivability and search and rescue facilities;

- (c) the availability and suitability of the helideck for use as an offshore destination alternate heliport including the physical characteristics, dimensions, configuration and obstacle clearance, the effect of wind direction, strength and turbulence;
- (d) the type of helicopter being used;
- (e) mechanical reliability of the helicopter engines and critical control systems and components;
- (f) the training and operational procedures, including mitigation of the consequences of helicopter technical failures;
- (g) specific mitigation measures;
- (h) helicopter equipment;
- (i) spare payload capacity for the carriage of additional fuel;
- (j) weather minima, taking into account the accuracy and reliability of meteorological information; and
- (k) communications and aircraft tracking facilities.

(14) Training programmes must ensure that the requirements in Document NAM-CATS-OPS 127 are complied with in relation to route qualification, flight preparation, concept of operations with offshore alternates and criteria for their use and that training programmes refer to the training for pilots and other relevant personnel, including as required meteorological observers and helideck personnel involved in such operations.

(15) When the use of an offshore alternate heliport is planned, the meteorological observations, both at the offshore destination and the offshore alternate heliport, should be taken by an observer acceptable to the designated meteorological authority.

(16) Offshore alternates should not be used for payload enhancement.

(17) To demonstrate the mechanical reliability of critical control systems and critical components of the helicopter, the operator should install and utilize a health and usage monitoring system with tailored criteria for this type of operation.

(18) The heliport operating minima for the offshore destination and offshore destination alternate heliport required under 127.08.7 must make do allowance for the availability and reliability of weather information and the geographic environment.

(19) An operator must specify cloud ceiling and visibility criteria relevant to the helideck elevation and location.

(20) To use an offshore destination alternate helideck, it must be ensured that, within 60 nautical miles of the destination helideck and alternate helideck, fog is not present nor forecasted during the period commencing one hour before and ending one hour after the expected time of arrival at the offshore destination or alternate helideck.

(21) An offshore alternate should be more than 30 nautical miles from the original destination to reduce the likelihood of a localized weather event precluding landings at both the destination and the alternate.

(22) An operator must ensure that, before passing the point of no return, the following actions have been completed:

- (a) confirmation that navigation to the destination and offshore alternate heliport is assured;
- (b) radio contact with the destination and offshore alternate heliport (or master station) is established;
- (c) the landing forecast at the destination and offshore alternate heliport are obtained and confirmed to be at or above the required minima;
- (d) the requirements for one engine inoperative landing are verified against the latest reported weather conditions to ensure that they can be met; and
- (e) to the extent possible, having considered information on current and forecast use of the offshore destination alternate heliport, and on conditions prevailing, the availability of the offshore alternate heliport will be guaranteed by the helideck provider until the landing at the destination, or the offshore destination alternate heliport, is achieved.

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

Refueling and defueling with passengers on board

127.08.9 A person may not refuel or defuel a helicopter when passengers are embarking, disembarking or on board unless the fuelling is carried out in accordance with the procedures specified in Document NAM-CATS-OPS 127 and such procedures are included in the operator’s operations manual referred to in regulation 127.04.2.

Fuel and oil policy

127.08.10 (1) An operator must establish a fuel and oil policy and procedures for the purpose of flight planning and in-flight re-planning and fuel management to ensure that every flight carries sufficient fuel and oil for the planned operation and reserve fuel to cover deviations from the planned operation.

- (2) An operator must 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; and
 - (b) the operating conditions under which the flight is to be conducted including –
 - (i) realistic helicopter fuel consumption data;
 - (ii) anticipated masses;
 - (iii) expected meteorological conditions;
 - (iv) air traffic service procedures and restrictions;
 - (v) for instrument flight rules flight, one instrument approach at the destination aerodrome, including a missed approach;

- (vi) the procedures specified in the operations manual for failure of one power-unit while en-route; and
 - (vii) any other conditions that may delay the landing of the helicopter or increase fuel consumption.
- (3) An operator must ensure that the calculation of usable fuel required by such helicopter for a flight meets the requirements specified in Document NAM-CATS-OPS 127.
- (4) An operator must ensure that in-flight re-planning procedures for calculating usable fuel required when a flight has to proceed along a route or to a destination aerodrome other than originally planned includes –
- (a) trip fuel for the remainder of the flight;
 - (b) reserve fuel consisting of –
 - (i) contingency fuel;
 - (ii) alternate fuel, if a destination alternate aerodrome is required, including selection of the departure aerodrome as the destination alternate aerodrome;
 - (iii) final reserve fuel; and
 - (iv) additional fuel, if required; and
 - (c) extra fuel, if required by the pilot-in-command.
- (5) The policies and procedures required by subregulation (1) must, as a minimum, include the requirement that –
- (a) in-flight fuel checks are to be performed at least hourly by or on behalf of the pilot-in-command to ensure that the amount of usable fuel remaining in flight is not less than the fuel required to proceed to a landing site where a safe landing can be made with the planned final reserve fuel remaining; and
 - (b) the pilot-in-command must request delay information from air traffic control when unanticipated circumstances may result in landing at the destination aerodrome with less than the final reserve fuel plus any fuel required to proceed to an alternate aerodrome or the fuel required to operate to an isolated aerodrome.
 - (c) the pilot-in-command must advise air traffic control of a minimum fuel state by declaring minimum fuel when, having committed to land at a specific landing site, the pilot calculates that any change to the existing clearance to that landing site, or other air traffic delays, may result in landing with less than the planned final reserve fuel.
 - (d) the pilot-in-command must declare a situation of fuel emergency by broadcasting MAYDAY MAYDAY MAYDAY FUEL, when the calculated usable fuel predicted to be available upon landing at the nearest landing site where a safe landing can be made is less than the planned final reserve fuel.

Instrument meteorological conditions or night flight without a second-in-command

127.08.11 An operator may not operate a helicopter without a second-in-command during flight in instrument meteorological conditions or at night unless –

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

Instrument approach and departure procedures

127.08.12 An operator may implement instrument approach and departure procedures other than instrument approach and departure procedures referred to in regulation 91.07.15, if required but such instrument approach and departure procedures must have been approved by –

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

Noise abatement procedures

127.08.13 (1) An operator must establish take-off and landing procedures that take into account the need to minimise the effect of helicopter noise.

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

Operation of helicopter in icing conditions

127.08.14 (1) A person may not conduct a take-off or continue a flight in a helicopter when icing conditions are reported to exist or are forecast to be encountered along the route to be flown unless the helicopter is equipped to be operated in such conditions and the helicopter type certificate authorises flight in such conditions.

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

(3) A person may not operate a helicopter in icing conditions at night unless the helicopter is equipped with a means to illuminate a representative surface or otherwise detect the formation of ice.

Surface contamination programme

127.08.15 (1) A person may not conduct or attempt to conduct a take-off in a helicopter that has frost, ice or snow adhering to any of its critical surfaces.

(2) Where conditions are such that frost, ice or snow may reasonably be expected to adhere to the helicopter, A person may not conduct or attempt to conduct a take-off in a helicopter unless the operator has established a helicopter inspection programme in accordance with a surface contamination programme approved by the Executive Director and the dispatch and take-off of the helicopter are in accordance with that programme.

- (3) The inspection referred to in subregulation (2) must be performed by—
- (a) the pilot-in-command;
 - (b) a qualified flight crew member of the helicopter who is designated by the pilot-in-command; or
 - (c) a person, other than a person referred to in paragraph (a) or (b), who—
 - (i) is designated by the operator of the helicopter; and
 - (ii) has successfully completed a helicopter surface contamination training programme approved for such operator.

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

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

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

Mass and balance control

127.08.16 (1) A person may not operate a helicopter unless, during every phase of the flight, the load restrictions, mass and centre of gravity of the helicopter conform to the limitations specified in the aircraft flight manual.

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

(3) An operator must specify in its operations manual its mass and balance programme and instructions to employees regarding the preparation and accuracy of mass and balance forms and the mass and balance sheet in accordance with regulation 127.04.9.

Performance based navigation

121.08.17 An operator operating a helicopter in airspace where a navigation specification for performance-based navigation has been specified must comply with regulation 91.05.4.

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

127.08.18 (1) An operator may not use a head-up display, enhanced vision system, synthetic vision system or combined vision system unless the operator –

- (a) is authorised to do so in its operations specifications;
- (b) has carried out a safety risk assessment of the operations in accordance with the safety management system; and

- (c) complies with the head-up display, enhanced vision system, synthetic vision system or combined vision system requirements, as applicable, specified in regulation 91.07.33.
- (2) An operator may not use a night vision goggles system unless the operator –
 - (a) is authorised to do so in its operations specifications;
 - (b) has carried out a safety risk assessment of the operations in accordance with the safety management system; and
 - (c) complies with the night vision goggle requirements in Document NAM-CATS-OPS 127.
- (3) An operator must include the procedures for use of such equipment in the operations manual referred to in regulation 127.04.2.

Operations with electronic flight bags

- 127.08.19** (1) An operator may not use an electronic flight bag unless the operator –
- (a) is authorised to do so in its operations specifications; and
 - (b) complies with the electronic flight bag requirements in NAM-CATS-OPS 91.
- (2) An operator must include the procedures for use of such equipment in the operations manual referred to in regulation 127.04.2.

Single-engine helicopter instrument meteorological conditions and night operations

127.08.20 (1) In the case of operations conducted in accordance with regulation 127.01.1, an operator may not operate a single-engine helicopter or performance class 3 helicopter with passengers or cargo on board in instrument meteorological conditions or night flight, except for special visual flight rules flights by day.

In-flight simulation of emergency situations and instrument meteorological conditions conditions

127.08.21 An operator must ensure that when passengers or cargo are being carried, no emergency or abnormal situations, or instrument meteorological conditions must be simulated.

DIVISION TWO: OPERATIONAL CONTROL

Operational control and supervision of flight operations

- 127.08.22** (1) An operator must establish and maintain an operational control system that meets the requirements in regulation 121.07.14, and which provides operational control services appropriate to the flights being operated.
- (2) An operator who wishes to use flight operations officers in their operational control system must comply with the requirements of regulation 127.03.11.
- (3) For the purposes of this regulation the term “helicopter” must be substituted for the term “aeroplane” where used in regulation 121.07.14.

Contracted services for operational control system

127.08.23 An operator may use the operational control system of an agent whether domestic or foreign but the operator must comply with regulation 121.07.15.

Operational flight plans

127.08.24 (1) An operator must prepare an operational flight plan for its flights as provided in Document NAM-CATS-OPS 127.

(2) The signatures or alternative means of signifying acceptance of the operational flight plan by the pilot-in-command and flight operations officer, if applicable, as required in Document NAM-CATS-OPS 127, must constitute a flight release and certifies that –

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

Familiarity with weather conditions and technical data

127.08.25 A flight operations officer may not release a flight unless he or she is thoroughly familiar with –

- (a) reported and forecast weather conditions on the route to be flown and at all planned destination and alternate aerodromes;
- (b) the navigational requirements for the planned routes and aerodromes; and
- (c) any other technical data relevant to the proposed flight including aerodrome operating minima, helicopter performance, maintenance status, notice transmissions, bulletins or operational directives issued by the operations manager,

and that nothing in such information indicates there is a threat to the safety of the flight.

Retention of flight operations documents and reports

127.08.26 (1) Unless otherwise specified by the Executive Director, every operator must retain all flight documents made in terms of this Subpart, for a period of not less than three months.

(2) All flight documentation required by this Subpart to be prepared with respect to a flight and which was carried on board that flight must be returned to the company's main base specified in the air operator certificate and such documentation must include weather maps and printed information, notice to airmissions, cargo and fuel loading sheets and manifests and all paperwork used to record the flight's progress or diversion and irregular or emergency situations.

Maintenance status

127.08.27 (1) A person may not dispatch or release a helicopter unless it is airworthy and all known defects have been rectified and appropriately certified by an helicopter maintenance engineer except where the dispatch of the helicopter is in accordance with an approved minimum equipment list issued in terms of regulation 127.08.29, a configuration deviation list approved by the State of Manufacture or as otherwise permitted in the aircraft flight manual referred to in regulation 91.03.2.

(2) Under a co-authority dispatch system the pre-flight briefing issued by the flight operations officer must include a full review of the helicopter maintenance status.

Incidents and defects

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

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

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

Minimum equipment list

127.08.29 (1) Except as provided in subregulations (2) and (5), a person may not conduct a take-off in a helicopter with instruments or equipment that are not serviceable or that have been removed, where such instruments or equipment are required by –

- (a) the standards of airworthiness that apply today or night visual flight rules or instrument flight rules flight, as applicable;
- (b) any equipment list published by the helicopter manufacturer respecting aeroplane equipment that is required for the intended flight;
- (c) an air operator certificate;
- (d) an airworthiness directive; or
- (e) these regulations.

(2) A person may conduct a take-off in a helicopter with instruments or equipment that are not serviceable or that have been removed but the helicopter must be operated in accordance with the conditions or limitations specified in a minimum equipment list, which has been approved by the Executive Director as provided for in Document NAM-CATS-OPS 127 and, in the opinion of the pilot-in-command, aviation safety will not be affected.

(3) An operator must establish a minimum equipment list for each type of helicopter for which a master minimum equipment list has been established by the organisation responsible for the aircraft type design in conjunction with the State of Design but the State of Design must be an ICAO Contracting State and the manufacturing standards used by such State must at least be equal to the ICAO standards for manufacturing.

(4) A person may not operate a helicopter in accordance with a minimum equipment list unless such minimum equipment list is carried on board the helicopter.

(5) A person may conduct a take-off in a helicopter that has instruments or equipment that are not serviceable or that have been removed where the helicopter is operated in accordance with the conditions of a flight permit that has been issued by the Executive Director or his or her delegate specifically for that purpose.

(6) A person may not conduct a take-off in a helicopter for which a minimum equipment list has not been approved and the helicopter has instruments and equipment, other than the

instruments and equipment specified in subregulation (1), that are not serviceable or that have been removed unless –

- (a) where the unserviceable instrument or equipment is not removed from the helicopter, it is isolated or secured so as not to constitute a hazard to any other helicopter system or to any person on board the helicopter;
- (b) the appropriate placards are installed as required by the maintenance control manual; and
- (c) an entry recording the actions referred to in paragraphs (a) and (b) is made in the flight folio, as applicable.

DIVISION THREE: CABIN SAFETY

Carriage of infants

127.08.30 (1) An operator must ensure that an infant is only carried when properly secured in the arms or on the lap of an adult passenger, or with a child restraint device or in a sky cot provided the sky cot is –

- (a) restrained so as to prevent it from moving under the maximum accelerations to be expected in flight; and
 - (b) fitted with a restraining device so as to ensure that the infant will not be thrown from such sky cot under the maximum accelerations to be expected in flight.
- (2) An operator must ensure that precautions are taken to ensure that, at the times seat belts are required to be worn in flight, the infant carried in the sky cot will not be thrown from such sky cot under the maximum accelerations to be expected in flight.
- (3) A passenger may be responsible for the safety of more than one infant on board a helicopter.
- (4) A infant may not be carried behind a bulkhead unless a child restraint device is used during critical phases of flight and during turbulence.
- (5) Sky cots may not be used during critical phases of flight.
- (6) Sky cots must be positioned in such a way that they do not prevent or hinder the movement of adjacent passengers or block exits.
- (7) When an infant is carried in the arms or on the lap of a passenger, the seat belt, when required to be worn, must 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 must 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 where approved for use in a helicopter, which is secured to the helicopter seat, provided –
- (a) the infant's seat is secured to the helicopter seat in accordance with the instructions provided with the child seat;

- (b) the infant's seat is designed to be secured to a passenger seat by means of a single lap strap and face the same direction as the passenger seat;
 - (c) the lower part of the shell does not unreasonably extend beyond the forward position of the passenger seat cushion on which it rests;
 - (d) the infant's seat is secured to the passenger seat at all times during flight, even when it is unoccupied by the child;
 - (e) only the infant must be removed from the aircraft in an emergency evacuation, not the infant's seat;
 - (f) the infant's seat is positioned in such a way that it does not prevent or hinder the movement of adjacent passengers or block exits;
 - (g) the infant's seat is not placed in an aisle seat, depending on cabin configuration;
 - (h) the infant's seat is used in accordance with infant weight limitations specified for such device; and
 - (i) the infant's seat is fitted with a single release harness, which secures the infant's lap, torso and shoulders, but designed that the child can easily be secured in or removed from it.
- (10) An infant or a car-type infant seat referred to in subregulation (9) may not be located in –
- (a) the same row or row directly forward or aft of an emergency exit; or
 - (b) in the same row as any other exit unless such exit and row are separated by a bulkhead.

Carriage of persons with a disability

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

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

- (a) the stretcher must be secured in such helicopter so as to prevent it from moving under the maximum accelerations likely to be experienced in flight and in an emergency alighting such as ditching;
 - (b) the person must be secured by an approved harness to the stretcher or helicopter structure; and
 - (c) an able-bodied assistant must accompany each person carried on a stretcher.
- (4) A person with a certified mental disability may not be carried in the helicopter unless –
- (a) accompanied by an able-bodied assistant; and
 - (b) a medical certificate has been issued by a medical practitioner certifying that the person with the mental disability is suitable for carriage by air, and confirming that there is no risk of violence from such person.
- (5) An operator must undertake the carriage of a person with a mental disability who, according to his or her medical history, may become violent, only after special permission has been obtained from the Executive 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), must not obstruct an aisle or any emergency exit or equipment.
- (8) If a passenger with a splinted or artificial limb cannot assist himself or herself, the passenger must be accompanied by an able-bodied assistant.

Limitations on carriage of infants, children and passengers with disability

127.08.32 (1) Unless otherwise authorised by the Executive Director, the maximum number of passengers with a disability, unaccompanied minors, or a combination of such passengers and minors, which may be carried by the operator, is limited to one per unit of 20 passengers capacity or part thereof.

(2) At least one able-bodied assistant must be carried for every group of five passengers with a disability or unaccompanied minors, or a part or combination of that group, and that assistant must be assigned with the responsibility for the safety of those passengers or minors except if the persons with a disability can assist themselves.

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

(4) An operator may establish procedures instead of the provisions of subregulations (2) and (3), for the carriage of children and persons with a disability but –

- (a) those procedures must not jeopardise aviation safety; and
- (b) prior written approval must be obtained from the Executive Director.

Carriage of inadmissible passengers, deportees or persons in custody

127.08.33 (1) An operator must establish procedures for the carriage of inadmissible passengers, deportees or persons in custody to ensure the safety of the helicopter and its occupants.

(2) The pilot-in-command of the helicopter must be notified by the operator of such helicopter prior to departure, of the intended carriage and the reason for carriage, of any of the persons referred to in subregulation (1).

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

Carry-on baggage

127.08.34 (1) An operator must establish adequate procedures to ensure that only such baggage is carried onto the helicopter and taken into the passenger cabin as can be adequately and securely stowed.

(2) The minimum requirements for the procedures referred to in subregulation (1) must be as provided for in Document NAM-CATS-OPS 127.

Securing of passenger cabin and galley

127.08.35 (1) Before take-off and landing and whenever considered necessary in the interests of aviation safety, the pilot-in-command must ensure that –

- (a) all equipment, baggage and loose articles in the cabin of the helicopter, including passenger service items and crew members’ and passengers’ personal effects, are properly secured and stowed so as to avoid the possibility of injury to persons or damage to such helicopter through the movement of such articles caused by in-flight turbulence or by unusual accelerations or manoeuvres; and
- (b) all aisles, passage ways, exits and escape paths are kept clear of obstructions.

(2) All solid articles must be placed in approved stowage areas in the helicopter at all times whenever the seat belt signs are illuminated or when so directed by the pilot-in-command of such helicopter.

(3) For the purposes of subregulation (2), “approved stowage area” means—

- (a) the area under a passenger seat; or
- (b) a locker, overhead or other, in accordance with the placarded mass limitation of the locker.

(4) A pilot-in-command of the helicopter may not commence a take-off or landing unless he or she has been informed of the safe condition of the cabin.

Passenger services

127.08.36 (1) Except when in use, all items provided for passenger services, including food containers, thermos flasks and servicing trays, must be carried in their respective stowages and secured against movement likely to cause injury to persons or damage to the helicopter.

(2) All items referred to in subregulation (1) must be stowed during take-off and landing or during emergency situations, as directed by the pilot-in-command of the helicopter.

(3) Any item which cannot be accommodated in the stowage referred to in subregulation (1) must not be permitted in the cabin of the helicopter.

(4) The cabin crew members must complete the securing of the cabin before the approach for landing of the helicopter is commenced, if cabin crew members are carried.

(5) If passenger services are provided while the helicopter is on the ground, no passenger service equipment must obstruct the aisles or exits of the helicopter.

Briefing of passengers

127.08.37 (1) The pilot-in-command must ensure that passengers are given a safety briefing in accordance with Document NAM-CATS-OPS 127.

(2) Where the safety briefing referred to in subregulation (1) is insufficient for a passenger because of that passenger's physical, sensory or comprehension limitations or because that passenger is responsible for another person on board the helicopter, the pilot-in-command must ensure that the passenger is given an individual safety briefing that is appropriate to the passenger's needs.

(3) The pilot-in-command must ensure that each passenger who is seated next to an emergency exit is made aware of how to operate that exit.

Safety features card

127.08.38 An operator must ensure that passengers are aware of the safety features on board the helicopter in pictographic form and any wording must be in English or as required by the Executive Director and must contain such information as provided for by Document NAM-CATS-OPS 127.

Securing of passengers

127.08.39 An operator must ensure that, during take-off and landing and whenever considered necessary by reason of turbulence or any emergency occurring during flight, all passengers on board a helicopter must be secured in their seats by means of the seat belts or harnesses provided.

SUBPART 9 HELICOPTER PERFORMANCE OPERATING LIMITATIONS

DIVISION ONE: GENERAL

Classification

127.09.1 (1) The classification of helicopters for performance limitations purposes is specified in regulation 91.08.3.

(2) An air operator must ensure that –

(a) a Class 1 helicopter is operated in accordance with the performance operating limitations specified in Division One;

(b) a Class 2 helicopter is operated in accordance with the performance operating limitations specified in Division Two; and

- (c) a Class 3 helicopter is operated in accordance with the performance operating limitations specified in Division Three.

(3) Where specific design characteristics of a helicopter prevent compliance with the regulations in Division two, Three or Four of this Subpart, the operator must, despite subregulation (2), ensure that the helicopter is operated in accordance with such standard that a level of safety equivalent to the level of safety specified in the appropriate Division in this Subpart is maintained.

General provisions for all classes of helicopters

127.09.2 (1) An operator must 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 in the appropriate Division can be complied with for the flight to be undertaken, allowing for expected reductions in mass as the flight proceeds; and
- (b) the approved performance data contained in the aircraft flight manual referred to in regulation 127.03.2, is used to determine compliance in the appropriate Division.

(2) In complying with any of the provisions in this Subpart, all factors that significantly affect the performance of the helicopter, as applicable to the phase of flight, must be taken into account and which must include as a minimum –

- (a) the mass of the helicopter;
- (b) the operating procedures employed by the operator;
- (c) the pressure altitude appropriate to the elevation of the aerodrome;
- (d) the ambient temperature;
- (e) the wind;
- (f) the condition of the surface; and
- (g) any other factors that may be reasonably identified or anticipated by the operator.

(3) The factors specified in subregulation (2) must be taken into account either directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the helicopter is being operated.

(4) An operator must ensure helicopter operations are conducted in a manner that gives appropriate consideration for achieving a safe forced landing in the event the safe continuation of flight is not assured following a critical power-unit failure.

(5) An operator of helicopters operating to or from aerodromes in a congested hostile environment must be approved by the Executive Director to do so and must publish procedures in the operations manual referred to in regulation 127.04.2 that ensure, to the extent possible, the safety of the helicopter, its occupants and persons and property on the ground and such operations must be performed only in Class 1 helicopters.

(6) A helicopter must be operated in compliance with the terms of its certificate of airworthiness and within the approved operating limitations contained in its flight manual.

(7) A flight may not be commenced unless the performance information provided in the flight manual, supplemented as necessary with other data acceptable to the Executive Director, indicates that the standards specified in this Subpart can be complied with for the flight to be undertaken.

(8) An operator must adopt obstacle data sufficient to make accurate and safe performance calculations to comply with the requirements in this Part for take-off, initial climb, approach and landing.

(9) In no case must the mass of the helicopter at the start of take-off, or at the expected time of landing at the destination and at any alternate, exceed the relevant maximum mass at which compliance has been demonstrated with the applicable noise certification standards, unless otherwise approved by the Executive Director in exceptional circumstances for a certain operating site where there is no noise disturbance problem.

(10) An operator must issue operating instructions and provide information on helicopter climb performance with all engines operating to enable the pilot-in-command to determine the climb gradient that can be achieved during the take-off and initial climb phase for the existing take-off conditions and intended take-off technique and this information must be based on the helicopter manufacturer's or other data, acceptable to Executive Director, and must be included in the operations manual referred to in regulation 127.04.2.

DIVISION TWO: CLASS 1 HELICOPTER

Take-off

127.09.3 (1) An operator of a Class 1 helicopter must ensure that the take-off mass of the helicopter does not exceed the maximum permitted take-off mass for the pressure altitude and the ambient temperature at the place of departure.

(2) The take-off mass referred to in subregulation (1) must be such that in the event of the critical power-unit failing –

- (a) at or before the DPATO, the helicopter can discontinue the take-off and stop within the rejected take-off area available; or
- (b) at or past the DPATO, the helicopter can continue the take-off and the climb, clearing all obstacles along the flight path by a vertical margin of at least 35 feet until such helicopter can comply with regulation 127.09.4.

(3) For the purposes of subregulation (2)(a), “rejected take-off area” means an elevated aerodrome.

(4) For the purposes of complying with subregulation (2), account must 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 percent of the reported head-wind component or, if such data is provided, not less than 150 percent of the reported tail-wind component but if approved wind measuring equipment must be used, the head-wind component may be increased to 80 percent of the headwind reported.

(5) The part of the take-off prior to the DPATO must be so conducted in sight of the surface that a rejected take-off can be carried out.

(6) An operator must ensure that the take-off flight path clears all obstacles as specified in Document NAM-CATS-OPS 127.

En-route with one or more engines inoperative

127.09.4 (1) An operator of a Class 1 helicopter must ensure that, in the event of the critical power unit becoming inoperative at any point in the en-route flight path, appropriate to the meteorological conditions expected for the flight, the helicopter can comply with subregulation (2) or (3) at all points along the route.

(2) An operator must ensure that, when it is intended that the flight will be conducted at any time out of sight of the surface, the mass of the helicopter permits a rate of climb of at least 50 feet per minute with one engine inoperative at any point along the route at the obstacle clearance altitude computed in accordance with regulation 91.07.2.

(3) An operator must ensure that –

(a) the flight path permits the helicopter to continue flight from the cruising altitude to a height of 1 000 feet above the aerodrome where a landing can be made in accordance with regulation 127.09.5;

(b) the flight path clears all obstacles vertically at the obstacle clearance margins referred to in regulation 91.07.2;

(c) the engine is assumed to fail at the most critical point along the route:

but when it is intended that the flight will be conducted by day, visual meteorological conditions and in sight of the surface, only obstacles within 900 metres on either side of the route need to be considered.

(4) Account must be taken of the effects of winds on the flight path.

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

Approach and landing

127.09.5 (1) An operator of a Class 1 helicopter must ensure that the landing mass of the helicopter at the estimated time of landing does not exceed the maximum landing mass specified for the pressure altitude and the ambient temperature expected for the estimated time of landing at the aerodrome at which it is intended to land and, when required, at any alternate aerodrome.

(2) When determining the landing mass, in the event of the critical power-unit becoming inoperative at any point during the approach and landing phase –

(a) before the landing decision point, the helicopter must, at the destination and at any alternate aerodrome, after clearing all obstacles in the approach path by a margin of 35 feet, be able to land and stop within the landing distance available or perform a balked 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 must, at the destination and at any alternate aerodrome, after clearing all obstacles in the approach path by a margin of 35 feet, be able to land and stop within the landing distance available;
- (3) For the purposes of complying with this regulation, account must 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 percent of the forecast head-wind component unless otherwise approved; and
 - (e) any expected variation in the mass of the helicopter during flight.
- (4) An operator must ensure that the part of the landing from the specified landing decision point to touchdown is conducted in sight of the surface.

DIVISION THREE: CLASS 2 HELICOPTER

General

127.09.6 (1) An operator of a Class 2 helicopter must 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 which permit a safe forced landing to be executed in the event of engine failure.

(2) A Class 2 helicopter must not be permitted to operate from elevated structures in built-up areas.

Take-off

127.09.7 (1) An operator of a Class 2 helicopter must ensure that the take-off mass of the helicopter does not exceed the maximum permitted take-off mass specified for a rate of climb for the pressure altitude and ambient temperature at the aerodrome of departure which allows the helicopter, in the event of the critical power unit becoming inoperative at any time after reaching the defined point after take-off, to continue the take-off and initial climb and clear all obstacles along its flight path by a margin of 35 feet, until such helicopter can comply regulation 127.09.8.

(2) An operator must ensure that for an elevated aerodrome, the take-off mass is such that the helicopter is capable of –

- (a) rejecting the take-off and landing on the elevated aerodrome; or
- (b) continuing the take-off and clearing the elevated aerodrome until such helicopter can comply with regulation 127.09.8, or carry out a safe forced landing.
- (3) For the purposes of complying with subregulation (2), account must be taken of –
 - (a) the pressure altitude at the elevated aerodrome;
 - (b) the ambient temperature at the elevated aerodrome;

- (c) the take-off technique to be used; and
 - (d) not more than 50 percent of the reported head-wind component or, if such data is provided, not less than 150 percent of the reported tail-wind component except that when approved wind measuring equipment is used, the headwind component may be increased to 80 percent of the headwind reported.
- (4) An operator must ensure that the part of the take-off up to the commencement of the take-off flight path is conducted in sight of the surface.
- (5) An operator must ensure that the take-off flight path clears all obstacles as specified in Document NAM-CATS-OPS 127.

En-route with one or more engines inoperative

127.09.8 (1) An operator of a Class 2 helicopter must ensure that, in the event of one engine becoming inoperative at any point in the en-route flight path, appropriate to the meteorological conditions expected for the flight, the helicopter can comply with this regulation at all points along the route.

- (2) When it is intended that the flight must be conducted –
 - (a) at any time out of sight of the surface, the mass of the helicopter must permit a rate of climb of at least 50 feet per minute with one engine inoperative at any point along the route at the obstacle clearance altitude computed in accordance with regulation 91.07.2;
 - (b) when it is intended that the flight will be conducted by day, in visual meteorological conditions and in sight of the surface, only obstacles within 900 metres on either side of the route need to be considered.
- (3) An operator must ensure that –
 - (a) the flight path permits the helicopter to continue flight from the cruising altitude to a height of 1 000 feet above the aerodrome where a landing can be made in accordance with regulation 127.09.9;
 - (b) the flight path clears all obstacles vertically by at least the obstacle clearance margins specified in regulation 91.07.2; and
 - (c) the engine is assumed to fail at the most critical point along the route:

but when it is intended that the flight will be conducted by day, visual meteorological conditions and in sight of the surface, only obstacles within 900 metres on either side of the route need to be considered.

- (4) Account must be taken of the effects of winds on the flight path.

Landing

127.09.9 (1) An operator of a Class 2 helicopter must ensure that the landing mass of the helicopter at the estimated time of landing does not exceed the maximum mass specified for the pressure altitude and ambient temperature expected for the estimated time of landing at the aerodrome at which it is intended to land and at any alternate aerodrome, which must allow the helicopter, in the event of the critical power unit becoming inoperative before the DPBL, after

clearing all obstacles by a safe margin, to either land and stop within the landing distance available or to perform a balked landing and clear all obstacles in the flight path by a margin of 35 feet.

(2) If the becoming inoperative of the critical power unit after the DPBL may cause the helicopter to force land, the helicopter must only be operated in conditions of weather and light and over such routes and diversions which permit a safe forced landing to be executed in the event of an engine failure.

(3) When determining the landing mass for elevated aerodromes, the landing mass must be such that the helicopter is capable of –

- (a) landing on the elevated aerodrome; or
 - (b) rejected the landing and clearing the elevated aerodrome, thereafter continuing the flight or carrying out a safe forced landing.
- (4) For the purposes of complying with subregulation (3)(b), account must be taken of –
- (a) the pressure altitude of the elevated aerodrome;
 - (b) the expected air temperature at the elevated aerodrome;
 - (c) the landing technique to be used;
 - (d) not more than 50 percent of the forecast headwind component unless otherwise approved; and
 - (e) any expected variation in the mass of the helicopter expected during the flight.

DIVISION FOUR: CLASS 3 HELICOPTER

General

127.09.10 (1) An operator of a Class 3 helicopter must ensure that operations are only conducted in conditions of weather and light, and from those aerodromes and over such routes and diversions therefrom, which will permit a safe forced landing to be executed in the event of a power unit failure.

(2) A Class 3 helicopter must not be permitted to operate from elevated aerodromes in built-up urban areas.

(3) An operator of a Class 3 helicopter may not operate such helicopter under instrument meteorological conditions, except for flights operated under special visual flight rules .

Take-off

127.09.11 (1) An operator of a Class 3 helicopter must ensure that the take-off mass of the helicopter does not exceed the maximum permitted take-off mass specified for a hover-inside-ground-effect with all power units operating at take-off power at the pressure altitude and ambient temperature at the take-off site.

(2) For the purposes of this regulation, hover-inside-ground-effect performance data must include consideration of loss of ground cushion as a result of strong winds.

(3) The helicopter must be able, with all engines operating, to clear all obstacles along its flight path by a margin of 35 feet until such helicopter can comply with regulation 127.09.12.

En-route

127.09.12 An operator of a Class 3 helicopter must ensure that the helicopter is able, with all power-units operating, to continue along its intended route or to a planned diversion without flying at any point below the appropriate minimum flight altitude.

Landing

127.09.13 (1) An operator of a Class 3 helicopter must ensure that the landing mass of the helicopter at the estimated time of landing does not exceed the maximum landing mass specified for a hover inside ground effect or hover outside ground effect, whichever is the greater, with all power units operating at take-off power at the pressure altitude and ambient temperature expected for the estimated time of landing at a destination aerodrome and at any alternate aerodrome, if required.

(2) For the purposes of this regulation, hover inside ground effect performance data must include consideration of loss of ground cushion as a result of strong winds.

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

**SUBPART 10
MAINTENANCE****General**

127.10.1 An operator of a commercial air transport helicopter may not operate the helicopter unless such helicopter is maintained in accordance with the regulations in Part 43.

Helicopter maintenance programme

127.10.2 (1) An operator of a commercial air transport helicopter must ensure that the helicopter is maintained in accordance with a helicopter maintenance programme established by the operator.

(2) The programme must contain details, including frequency, of all maintenance required to be carried out on the helicopter and when applicable, a continuing structural integrity programme and Maintenance tasks and intervals that have been specified as mandatory in approval of the type design must be identified as such; and

(3) The programme must include a reliability programme if the Executive Director determines that such a reliability programme is necessary; and

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

(5) An operator of a commercial air transport Class C helicopter, to be operated at night or in instrument meteorological conditions while carrying passengers, must include in the schedule, referred to in subregulation (1) –

(a) either the manufacturer's recommended engine trend monitoring programme, which includes an oil analysis, if appropriate; or

- (b) an engine trend monitoring programme, approved by the Executive Director, that includes an oil analysis at each 100 hours interval or at the manufacturer's suggested interval, whichever is more frequent.

(6) The results of each test, observation, and inspection, required by the applicable engine trend monitoring programme specified by subregulation (5) must be recorded and maintained in the engine maintenance records.

(7) The programme must contain, in respect of any helicopter referred to in subregulation (5), written maintenance instructions containing the methods, techniques, and practices necessary to maintain the equipment specified in regulation 127.05.3.

(8) The maintenance programme must be based on maintenance programme information made available by the State of Design or by the organisation responsible for the type design, and any additional applicable experience, where such information is available.

Maintenance contracted to approved aircraft maintenance organisation

127.10.3 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 must ensure that all contracted maintenance is carried out in accordance with the regulations in Part 43.

Operator's maintenance responsibilities

127.10.4 (1) An operator must establish procedures acceptable to the Executive Director that ensure –

- (a) each helicopter they operate is maintained in an airworthy condition;
- (b) the operational and emergency equipment necessary for an intended flight are serviceable; and
- (c) the Certificate of Airworthiness of each helicopter they operate, and any appropriate special conditions, remains valid.

(2) An operator may not operate a helicopter unless it is maintained and released to service by an organisation approved in accordance with Part 145 in the manner referred to in regulation 127.09.3.

(3) An operator must be resourced sufficiently to ensure that all maintenance is carried out in accordance with the maintenance control manual referred to in regulation 127.095.

(4) An operator must ensure that the maintenance of its helicopters is performed in accordance with the maintenance programme referred to in regulation 127.09.2.

Operator's maintenance control manual

127.10.5 (1) An operator must provide a maintenance control manual that meets the requirements in Document NAM-CATS-OPS 43 for the use and guidance of maintenance and operational personnel concerned.

(2) The maintenance control manual referred to in subregulation (1) must incorporate relevant principles of human factors.

(3) An operator must provide two copies of its proposed maintenance control manual to the Executive Director and one copy of the approved maintenance control manual must remain in the custody of the Executive Director.

(4) An operator must amend its maintenance control manual as necessary in accordance with the amendment procedures contained in the maintenance control manual, in order to keep the information contained therein up-to-date and accurately reflect company policy with respect to the maintenance of its helicopters and the operator must forward two copies of all amendments to the maintenance control manual to the Executive Director for approval.

(5) Upon receipt of any approved amendments, each holder of an maintenance control manual must be furnished a copy of such amendment with clear instructions to insert the amended pages in a timely manner into the maintenance control manual.

(6) The Executive Director may require an operator to produce an amendment where he or she is of the opinion that the maintenance control manual requires updating.

Maintenance records

127.10.6 (1) An operator must ensure that the following records are kept for the periods specified in subregulation (2) –

- (a) the total time in service (hours, calendar time and cycles, as appropriate) of the helicopter and all life limited components;
- (b) the current status of compliance with all mandatory continuing airworthiness information;
- (c) appropriate details of modifications and repairs;
- (d) the time in service (hours, calendar time and cycles, as appropriate) since the last overhaul of the helicopter or its components subject to a mandatory overhaul life;
- (e) the current status of the helicopter's compliance with the maintenance programme; and
- (f) the detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.

(2) The records in subregulation (1) (a) to (e) must be kept for a minimum period of 6 months after the unit to which they refer has been permanently withdrawn from service and the records in subregulation (1) (f) for a minimum period of five years after the signing of the maintenance release.

(3) In the event of a temporary change of operator, the records must be made available to the new operator and in the event of any permanent change of operator, the records must be transferred to the new operator.

(4) The Executive Director must determine whether a transfer under subregulation (4) is to be considered temporary, in the light of the need to exercise control over the records, which will depend on access to them and the opportunity to update them.

Continuing airworthiness information

127.10.7 (1) An operator must monitor and assess maintenance and operational experience with respect to continuing airworthiness and provide such information as required by the Executive Director and must report said information to him or her using a reporting system the Executive Director has developed for that purpose.

(2) The Executive Director must transmit all mandatory continuing airworthiness information reported to him or her in accordance with subregulation (1) to the State of Design of any helicopter that has been issued a Namibian Certificate of Airworthiness and operated in terms of this Part.

(3) An operator must obtain and assess continuing airworthiness information and recommendations issued by a helicopter manufacturer, the organisation responsible for the helicopter type design or by the State of Design, or any additional requirements issued by the Executive Director for each type of helicopter operated under this Part and must implement resulting actions considered necessary in accordance with a procedure acceptable to the Executive Director.

Modifications and repairs

127.10.8 (1) All modifications and repairs must comply with Part 43.

(2) Procedures must be established to ensure that the substantiating data supporting compliance with the airworthiness requirements are retained.

Maintenance release

127.10.9 (1) A maintenance release must be completed and signed to certify that the maintenance work has been completed satisfactorily and in accordance with approved data and the procedures described in the maintenance organisation's procedures manual.

- (2) A maintenance release must contain a certification including –
- (a) basic details of the maintenance carried out including detailed reference of the approved data used;
 - (b) date such maintenance was completed;
 - (c) when applicable, the identity of the approved maintenance organisation; and
 - (d) the identity of the person or persons signing the release.

Records

127.10.10 (1) An operator must ensure that the following records are kept –

- (a) in respect of the entire helicopter: the total time in service;
- (b) in respect of the major components of the helicopter –
 - (i) the total time in service;
 - (ii) the date of the last overhaul;
 - (iii) the date of the last inspection;

- (c) in respect of those instruments and equipment, the serviceability and operating life of which are determined by their time in service –
- (i) such records of the time in service as are necessary to determine their serviceability or to compute their operating life; and
 - (ii) the date of the last inspection.
- (2) These records must be kept for a period of 90 days after the end of the operating life of the unit to which they refer.

SUBPART 11 SAFETY AND QUALITY MANAGEMENT SYSTEMS

DIVISION ONE: SAFETY MANAGEMENT SYSTEM

Requirement for safety management system

127.11.1 (1) An operator must ensure that it maintains an acceptable level of safety by establishing and maintaining a safety management system that meets the requirements of this Subpart and is approved by the Executive Director.

(2) The size and complexity of an approved safety management system must be determined by the Executive Director and measured in terms of scope and size as well as the hazards and risks associated with the activities being carried out by the certificate holder.

(3) The holder of an air operator certificate issued in terms of this Part who is also the holder of an approved maintenance organisation certificate issued under Part 145, must adhere to the requirements referred to in Part 145 with regard to a safety management system when undertaking maintenance control activities.

(4) An operator's safety management system must include a safety management documents system.

(5) An operator's safety management system must comply with the requirements of Part 140 of these regulations.

SUBPART 12 SECURITY

Aviation security for domestic and international air transport operations

127.12.1 Despite the security requirements specified under this Part, an operator, owner or pilot-in-command, as the case may be, must ensure that the security requirements specified in Parts 108 to 114 in respect of all domestic and international air transport operations are complied with.

SUBPART 13 DANGEROUS GOODS

Transportation of dangerous goods

127.13.1 When transporting dangerous goods the operator, owner or pilot-in-command must comply with the requirements of Part 92.”.

Substitution of Part 135 of Regulations

7. The Regulations are amended by the substitution for Part 135 of the following Part:

**“PART 135
AIR TRANSPORT OPERATIONS - CARRIAGE OF LESS THAN 20 PASSENGERS OR
CARGO**

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SUBPART 1 GENERAL

Applicability

135.01.1 (1) This Part applies to any Namibia operator engaged in a commercial air transport operation using –

- (a) aeroplanes registered in Namibia –

- (i) having a maximum certificated passenger seating capacity of 19 or less as authorised in the initial type certificate issued to the aeroplane; or
 - (ii) operating in an all-cargo configuration having a maximum certificated take-off mass of 8 618 kilogrammes or less;
- (b) any aircraft that is authorised by the Executive Director to be operated under this Part;
 - (c) persons employed, or otherwise engaged by the operator referred to in subregulation (1)(a), who perform functions essential to the operation of aeroplanes operated under this Part, and
 - (d) persons, mail or cargo on board an aeroplane operated under this Part.

(2) For the purposes of this Part, an aeroplane registered in another State and operated by the holder of an operating certificate issued in Namibia, must be considered to be registered in Namibia.

Admission to flight deck

135.01.2 (1) An operator and the pilot-in-command of any aeroplane with a flight deck door operated under this Part, must ensure that no person, other than the flight crew members assigned to the flight, is admitted to, or carried on the flight deck of the aeroplane unless the person is –

- (a) an authorised officer, inspector or authorised person; or
- (b) permitted by, and carried in accordance with, the instructions contained in the operations manual referred to in regulation 135.04.2.

(2) Despite subregulation (1), an operator of aeroplanes certificated or authorised for flight with one pilot may use the second seat on the flight deck as a passenger seat.

(3) Despite subregulation (1), the pilot-in-command may, in the interests of safety, deny a person admission or remove the person from the flight deck and any decision to deny admission or remove a person from the flight deck must be reported to the operator and must include the reasons for the decision.

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

Passenger intoxication and unruly behaviour

135.01.3 (1) An air operator may not permit a person to enter or be in the aeroplane while under the influence of alcohol or a drug having a narcotic effect, to the extent where it is reasonably foreseeable to the operator or pilot-in-command that the safety of the aeroplane or its occupants is or is likely to be endangered.

(2) An operator must establish procedures to ensure that any person referred to in subregulation (1) or one whose behaviour otherwise represents a threat to the safety of the aeroplane or its occupants or to the maintenance of good order and discipline on board the aeroplane is –

- (a) refused embarkation; or

- (b) if the person is on board, restrained or disembarked, if possible.

Compliance with laws, regulations and procedures

135.01.4 (1) An operator must ensure that its flight crew is familiar with the laws, regulations, and procedures, pertinent to the performance of their flight duties and required for areas to be traversed, aerodromes to be used, and air navigation facilities relating thereto.

(2) An operator must ensure that all its employees, when performing their functions abroad, know that they must comply with the laws, regulations, and procedures of a concerned State.

(3) The Authority must immediately notify a foreign operator and if warranted, a State of the foreign operator and a State of Registry, as the case may be, if –

(a) a non-compliance or suspected non-compliance with applicable laws of Namibia by a foreign operator is identified, or

(b) a potential serious safety issue similar to one encountered by another operator is identified.

(4) The Authority must consult with a State of an operator and a State of Registry as applicable concerning safety standards maintained by a foreign operator if a notification as specified in subregulation (3) is issued and its resolution warrants it.

Regulatory infractions during emergency situations

135.01.5 (1) If a pilot-in-command takes an action considered necessary to ensure the safety of an aeroplane which results in a violation of any regulation of a State in, or over which an aeroplane is being operated, the pilot-in-command must comply with the requirements of regulation 91.01.2 and, where possible, cause the event to be marked on a cockpit voice recorder.

(2) Despite any requirement to file a report in terms of regulation 91.01.2, a pilot-in-command must submit a full report of the event to a person responsible for operations within 48 hours after conclusion of the flight in the manner specified in a concerned air carrier's operations manual.

(3) A pilot-in-command must, within 48 hours following an act of unlawful interference whereby the pilot-in-command was incapacitated, report the act to the Authority and any other appropriate authority.

Language proficiency - other languages

135.01.6 (1) In addition to the English Language Proficiency referred to in Part 61, an operator may not assign a flight crew to duty unless at least one member of the flight crew has the ability to speak and understand the language used for radiotelephony communications over any route and at any aerodrome named in the operational flight plan for that flight.

(2) The level of language proficiency required to be demonstrated to the operator must be as provided for in Document NAM-CATS-OPS 135.

SUBPART 2
OPERATIONS PERSONNEL REQUIREMENTS

DIVISION ONE: FLIGHT CREW REQUIREMENTS

Composition of flight crew

135.02.1 (1) The minimum number and composition of the flight crew must not be less than the minimum number and composition specified in the aeroplane flight manual referred to in regulation 135.04.4.

(2) An operator must allocate additional flight crew members when it is required by the type of operation, and the number of the additional flight crew members must not be less than the number specified in the operations manual referred to in regulation 135.04.2.

(3) The flight crew must include at least one member who is proficient in navigating over the route to be flown using the equipment required for the navigation.

(4) An operator must designate for each flight a pilot-in-command and, where the aeroplane is required by this Part to be operated by two pilots, a second-in-command.

(5) A flight crew member may be relieved in flight of his or her flight deck duties by another flight crew member qualified in accordance with regulations 135.02.3 and 135.02.5.

(6) A co-pilot is required for instrument flight rules commercial air transport operations unless the Authority has issued an exemption, in accordance with the exemption process in Part 3 of these regulations, for the use of an autopilot in lieu of a co-pilot. This exemption must be for domestic operations only and for aeroplane with a maximum certificated take-off mass of 5 700 kilogrammes (12 566 lb) or less or helicopters with a maximum certificated take-off mass of 3 175 kilogrammes or less.

(7) When a separate flight engineer's station is incorporated in the design of an aeroplane and the flight engineer function cannot be accomplished from the pilot's station by a pilot who holds a flight engineer license without interference with regular duties, the flight crew must include at least one crew member who holds a flight engineer license especially assigned to that station.

Minimum requirements for assignment as pilot-in-command

135.02.2 (1) An operator may not assign a flight crew member as a pilot-in-command, and a flight crew member may not accept any assignment to act as a pilot-in-command of any aeroplane, unless the flight crew member meets the minimum flight time requirements for command and the operating experience requirements in Document NAM-CATS-OPS 135.

(2) The Executive Director may, in the interests of safety, require a pilot-in-command to have additional flight time experience prior to operating in that position.

(3) An operator must publish the minimum flight time for assignment and operating experience requirements for a pilot-in-command in its operations manual.

Crew pairing and in-flight relief of flight crew members

135.02.3 (1) An operator must publish procedures in its operations manual to ensure flight crew members who do not meet the crew pairing standards specified in Document NAM-CATS-OPS 135 are not simultaneously assigned to flight duty.

(2) A flight deck crew member may be relieved in flight of his or her flight deck duties by another flight deck crew member qualified in accordance with regulation 135.02.5.

(3) A flight engineer may be relieved in flight by a flight crew member who is qualified in accordance with regulation 135.02.10 or by a suitably qualified flight crew member acceptable to the Executive Director.

(4) An operator may not assign to a person and a person may not accept, an assignment to provide in-flight relief for the purpose of extending any flight duty period, unless the relief pilot holds the minimum qualifications specified in regulation 135.02.9.

Flight crew member emergency duties

135.02.4 (1) An operator and, where appropriate, the pilot-in-command of any aeroplane operated in terms of this Part, must assign to each flight 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) must be the as to ensure that any reasonably anticipated emergency can be adequately dealt with and must take into consideration the possible incapacitation of individual flight crew members.

(3) A flight crew member may not accept an assignment of emergency functions unless the flight crew member has been instructed in the performance of the emergency functions in accordance with the requirements in Subpart 3 and must include instruction in the use of all emergency and lifesaving equipment required to be carried.

DIVISION TWO: QUALIFICATION REQUIREMENTS

Flight crew member qualifications

135.02.5 (1) Subject to subregulation (5), an operator may not assign a person to act and a person may not act as the pilot-in-command or second-in-command of an aeroplane in a commercial air transport operation unless the person –

- (a) is the holder of valid licences, ratings and certificates appropriate to his or her assignment; and
- (b) has completed the training and checking requirements specified in Subpart 3 as appropriate to the intended flight.

(2) A pilot who does not meet the recency requirements of regulation 91.02.4 or whose training and checking validity periods have lapsed must regain competency as provided for in the regaining competency requirements specified in Subpart 3.

(3) Except as provided in subregulation (4), an operator may not assign a person to act and a person may not act as the pilot-in-command or second-in-command on more than three aeroplane types for which a separate licence endorsement is required, having a maximum certificated take-off mass greater than 5 700 kilogrammes and operated in terms of this Part.

(4) If a person acts as the pilot-in-command or second-in-command on one or more aircraft types with an maintenance control manual greater than 5 700 kilogrammes in terms of Part 93, 96, 121 or 127, the number of aeroplane types operated in terms of this Part must be reduced by an equal number.

(5) An operator may permit a person to act and a person may act as the pilot-in-command or second-in-command of an aeroplane where the person does not meet the requirements of subregulation (1), if –

- (a) the aeroplane is operated on a training, ferry or positioning flight; and
- (b) the operator –
 - (i) is authorised to do so in its operations manual; and
 - (ii) otherwise complies with the provisions of this Part.

Area, route and aerodrome qualifications

135.02.6 (1) An operator may not assign a pilot to act, and a pilot may not act, as a pilot-in-command of an aeroplane engaged in passenger-carrying operations, unless the pilot-in-command has familiarised himself or herself with the area, route and aerodromes to be operated over or into prior to operating there, including consideration of –

- (a) the aerodrome operating minima, terrain and minimum safe altitudes;
- (b) the en-route and aerodrome meteorological conditions, in particular any localized adverse weather patterns;
- (c) the meteorological, communication and air traffic and search and rescue facilities, services and procedures, as appropriate;
- (d) the aerodrome obstructions, physical layout, approach aids and arrival, departure, holding and instrument approach procedures and weather minima;
- (e) the procedures applicable to flight paths over densely inhabited areas and areas of higher traffic density; and
- (f) with respect to the navigational capability associated with the route along which the flight is to take place –
 - (i) the use of the equipment needed to navigate the route; and
 - (ii) the navigational facilities and procedures, including any long-range or specialised navigation procedures or equipment, to be used.

(2) An operator must establish in its operations manual the means by which the pilot-in-command is to become familiar with the area, route and aerodromes over or into which he or she is to operate.

Requirement for flight followers

135.02.7 An operator must employ sufficient flight followers to ensure adequate operational control is exercised over its flights.

Flight operations officer or follower qualifications

135.02.8 (1) An owner or operator must 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 the duties to the operation as a whole.

(2) An operator may not permit a person to act and a person may not act as a flight follower, unless the person meets the training and checking requirements specified in Subpart 3.

Ground personnel qualifications

135.02.9 Where an operator employs ground personnel to provide essential ground support services appropriate to the aeroplanes and type of service being operated, the operator must ensure –

- (a) persons assigned to the handling of dangerous goods are qualified to do so in accordance with Subpart 3; and
- (b) persons assigned to provide direct service to an operator's aeroplanes or any passenger, cargo or mail intended to be carried aboard the aeroplanes, are trained and qualified as appropriate to their assignments.

DIVISION THREE: FLIGHT TIME AND DUTY LIMITATIONS

Flight time and duty scheme

135.02.10 (1) An operator must –

- (a) establish a scheme for the regulation of flight time and duty periods, rest periods and days free of duty as applicable, for each flight crew member and flight operations officer that -
 - (i) complies with the flight time and duty period limitations, rest periods and days free of duty, specified in Document NAM-CATS-OPS 135; or
 - (ii) is a system of flight time and duty period limitations, rest periods and days free of duty proposed by the operator where the Executive Director is of the opinion that an equivalent level of safety may be achieved by the operator's proposed scheme; and
- (b) publish the scheme referred to in subregulation (1)(a) in the operations manual referred to in regulation 135.04.2.

(2) The operator may not assign any assignment to a flight crew member and a flight crew member may not accept an assignment if the assignment is not in compliance with the provisions of the scheme referred to in subregulation (1)(a) or if –

- (a) the operator or flight crew member knows or has been made aware that the flight assignment will cause the flight crew member to exceed the flight time or duty periods referred to in subregulation (1)(a) while on duty; or
- (b) the flight crew member 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 aeroplane or its flight crew members and passengers.

(3) An operator may not schedule a flight crew member for flight time for a period exceeding eight consecutive hours during any given flight time and duty period unless authorised in the scheme referred to in subregulation (1)(a).

(4) Where any flight crew member is aware of any reason, they would be in violation of the scheme referred to in subregulation (1)(a), that person must, without delay, inform the operator.

- (5) For the purposes of this Regulation, the operator must be taken to mean –
- (a) the appropriate management personnel if time permits;
 - (b) the duty crew scheduler of the operator; or
 - (c) the duty person responsible for operational control over the flight.

(5) The provisions to be included in a flight time and duty scheme referred to in subregulation (1) must be as provided for in Document NAM-CATS-OPS 135.

Fatigue risk management system

135.02.11 (1) An operator who establishes a scheme for the regulation of flight time and duty periods in accordance with regulation 135.02.10(1)(a)(ii) must establish a fatigue risk management system for the purpose of managing fatigue.

- (2) An operator's fatigue risk management system must contain, as a minimum –
- (a) a fatigue risk management system policy;
 - (b) a fatigue risk management processes;
 - (c) a safety assurance processes; and
 - (d) a fatigue risk management system promotion processes:

specified in Document NAM-CATS-OPS 135.

(3) An operator must designate a person responsible for the fatigue risk management system who meets the qualifications and experience requirements and who will be responsible for the functions as provided for in Document NAM-CATS-OPS 135.

- (4) A fatigue risk management system established in terms of subregulation (1) must –
- (a) be based upon scientific principles, knowledge and operational experience with the aim of ensuring that flight crew and cabin crew members are performing at an adequate level of alertness; and
 - (b) be integrated with the safety management system.

Approval of fatigue risk management system

135.02.12 (1) An operator must submit to the Executive Director their proposed fatigue risk management system which complies with regulation 135.02.11(2).

(2) The Executive Director must approve the commencement of a trial phase for implementation of the proposed fatigue risk management system for a trial period of up to 36 months if the Executive Director is satisfied that the operator has complied with the provisions of regulation 135.02.11(2).

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

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

(5) After a 24 months period an operator, approved under subregulation (2), may apply to the Executive Director for full approval by providing evidence that the fatigue risk management system is delivering the required safety outcomes.

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

Fatigue risk management system manual

135.02.13 (1) An operator must draw up a fatigue risk management system containing all the information required under this Part and publish the content in their operations manual as provided for in Document NAM-CATS-OPS 135.

SUBPART 3 TRAINING AND CHECKING

DIVISION ONE: GENERAL

Operator approved training programme

135.03.1 (1) An operator must establish, implement and maintain a training and checking programme for all personnel referenced in this Subpart that will ensure that the personnel are adequately trained and qualified to perform their assigned duties and the personnel must undergo the training from that operator, except as provided in Document NAM-CATS-OPS 135.

(2) The training programme referred to in subregulation (1) must be conducted by an aviation training organisation approved in accordance with Part 141 or by the operator if approved by the Executive Director as provided in regulation 135.03.2 but if approved to be conducted by the operator –

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

(3) An operator who has been approved to conduct its own training programme as provided for in subregulation (2), may contract the training either in whole or in part to another organisation in accordance with the provisions specified in Document NAM-CATS-OPS 135.

- (4) An operator must ensure that –

- (a) prior to assignment to duty, each person required to receive training in accordance with this Subpart, must, whether employed on a full time or part time basis, receive training as appropriate to his or her duties in accordance with the provisions in Document NAM-CATS-OPS 135;
 - (b) each person required to receive the training referred to in paragraph (a), must pass a written examination or other comprehension assessment acceptable to the Executive Director and where applicable, complete a skills test as specified in this Subpart; and
 - (c) the training facilities, equipment and personnel must meet the requirements specified in Document NAM-CATS-OPS 135.
- (5) The training and checking programme referred to in subregulation (1) must comply with Document NAM-CATS-OPS 135.
- (6) The training programme referred to in subregulation (1) must include a system of record keeping referred to in regulation 135.04.8.
- (7) The training records referred to in subregulation (6) must be retained as provided in regulation 135.04.8.
- (8) An operator must publish the training programme referred to in regulation 135.03.1(1) in the operations manual referred to in regulation 135.04.2.

Approval of training programme

- 135.03.2** (1) An operator must submit its ground and flight training programme and any amendments to its ground and flight training programme to the Executive Director for approval.
- (2) The initial and final approval process must be as provided for in Document NAM-CATS-OPS 135.
- (3) The Executive Director may approve an operator to have its training programme either in whole or in part contracted to another organisation in accordance with Document NAM-CATS-OPS 135.

DIVISION TWO: FLIGHT CREW MEMBER TRAINING

Flight crew member training

- 135.03.3** (1) An operator must provide ground and flight training to its flight crew members that includes at least the following training components –
- (a) company induction training;
 - (b) crew resource management training including human factors, risk analysis and error management training;
 - (c) cabin safety procedures, emergency equipment procedures and security training;
 - (d) initial and recurrent aeroplane type ground and flight training; and
 - (e) regaining recency or qualification training when required.

(2) An operator must provide ground and flight training to its flight crew members that includes at least the following training components as appropriate to its operation and the type of aeroplane operated –

- (a) line induction training on aeroplanes with a maximum take-off mass of greater than 5 700 kilogrammes following initial training or upgrade training;
- (b) differences and familiarisation training where the operator intends to assign a flight crew member to variant types, in accordance with regulation 135.02.5(1)(b);
- (c) initial upgrade training for aeroplanes required to be crewed by two pilots;
- (d) for aeroplanes with dual controls, pilot training to operate in either pilot seat for pilots required to operate in either seat;
- (e) area, route and airport familiarization training on initial conversion or upgrade training, as applicable;
- (f) airborne collision avoidance system training;
- (g) reduced vertical separation minima training;
- (h) training for low visibility take-off;
- (i) single-engine instrument flight rules and night visual flight rules training;
- (j) single pilot instrument flight rules and night visual flight rules training;
- (k) dangerous goods training;
- (l) upset prevention and recovery training; and
- (m) any other course of studies required by the Executive Director as provided for in Document NAM-CATS-OPS 135 to ensure full competency of personnel on new or special equipment installed in the operator's aeroplane or other operations requiring specialised training.

(3) The training required by subregulation (1) and (2) must be as provided for in Document NAM-CATS-OPS 135.

(4) The validity period for any training required under this subpart must be as provided for in regulation 135.03.6.

Advanced qualification programme

135.03.4 (1) The Executive Director may, upon application by an operator, approve the incorporation of an advanced qualification programme into the operator's approved training programme but the advanced qualification programme must meet the conditions specified in Document NAM-CATS-OPS 135.

(2) The advanced qualification programme must ensure a level of proficiency is maintained at least to the standards required by Division four of this Subpart.

DIVISION THREE: TRAINING OF PERSONS OTHER THAN FLIGHT AND CABIN CREW MEMBERS

Employee and service agent training

135.03.5 An operator must provide initial, recurrent and refresher training and checking as provided for in Document NAM-CATS-OPS 135 for any person whose function is essential to safe operations in terms of this Part and the training must be given to at least –

- (a) flight followers;
- (b) ground service personnel as identified in regulation 135.02.8, as applicable; and
- (c) any other person the Executive Director determines is required to receive training.

DIVISION FOUR: TRAINING, CHECKING, CERTIFICATION AND VALIDITY

Checking of flight crew members

135.03.6 (1) An operator may not assign any assignment to operate an aeroplane under this part to a pilot-in-command or a second-in-command and a pilot-in-command or second-in-command may not accept an assignment to operate an aeroplane under this Part unless he or she has completed the check requirements specified in Document NAM-CATS-OPS 135.

(2) The conduct of the checks required in terms of this subpart must be as provided for in Document NAM-CATS-OPS 135.

(3) An initial and recurrent flight training, and proficiency and competency checks for a flight crew member conducting single pilot operation, must be performed –

- (a) in a single pilot role on the same class of aeroplane; and
- (b) in an environment representative of an operation.

Training and pilot proficiency or competency check validity periods

135.03.7 (1) The validity periods of the training required by this Subpart for flight crew members are as follows:

- (a) company induction training must be indefinite while employed with that operator except that significant changes in policies or procedures are required to be conveyed to the employee as required;
- (b) crew resource management training is valid to the first day of the thirteenth month following the last training;
- (c) cabin safety, emergency equipment and security training –
 - (i) cabin safety, emergency equipment and security theoretical training is valid indefinitely provided new equipment or procedures are not introduced, whereupon employees must receive training in the equipment or procedures; and
 - (ii) practical training in the use of emergency equipment is valid until the first day of the thirty-seventh month following the last training;

- (d) aeroplane ground and flight training is valid to the first day of the thirteenth month following the last training;
 - (e) regaining competency training is valid indefinitely unless a provision of the Regulation is not met;
 - (f) line induction training is valid indefinitely unless the pilot is required to undergo initial or upgrade training;
 - (g) differences and familiarisation training is valid indefinitely provided recurrent ground and flight training is completed as provided in the approved training programme;
 - (h) upgrade training is valid indefinitely on that aeroplane type;
 - (i) pilot qualification to operate in either pilot seat is valid to the first day of the thirteenth month following the last training;
 - (j) airborne collision avoidance system training is valid to the first day of the thirteenth month following the last training;
 - (k) reduced vertical separation minima training is valid indefinitely provided the pilot has operated in airspace in the preceding 12 months;
 - (l) low visibility take-off training is valid to the first day of the thirteenth month following the last training;
 - (m) single-engine instrument flight rules or night training is valid to the first day of the thirteenth month following the last training.
 - (n) single-pilot instrument flight rules or night operations training is valid to the first day of the thirteenth month following the last training;
 - (o) dangerous goods training and dangerous goods awareness training are valid to the first day of the twenty-fifth month following the last training; and
 - (p) the validity periods of training in other areas must be as determined by the Executive Director. Training with respect to flight operations involving the use of specialised equipment or procedures must be accomplished as part of the annual recurrent training programme.
- (2) The validity period of the training required by this Subpart for employees and agents must be as specified in the approved training programme.
- (3) Except as provided in Document NAM-CATS-OPS 135, the following checking validity periods must apply –
- (a) for flight crew members –
 - (i) except as provided in subparagraph (ii), a pilot proficiency check or competency check is valid to the first day of the seventh month following the month the pilot proficiency check or competency check took place;
 - (ii) where an operator is approved for aeroplane grouping on specific aeroplane types, as provided in in Document NAM-CATS-OPS 135.03.6, the approval allows for the pilot proficiency check completed on one aeroplane of the

grouped types to be valid to the first day of the seventh month following the month in which the pilot proficiency check took place for all the aeroplanes in that grouping; and

- (iii) a line check is valid until the first day of the thirteenth month following the month the line check took place; and
- (b) for other than flight crew members, checks are valid until the first day of the twenty-fifth month following the month the check took place.
- (4) Where any required training or check is renewed within the last 90 days of its validity period, its validity period is extended by 12, 24 or 36 months, as appropriate.
- (5) The Executive Director may extend the validity period of any training or check by up to 30 days where the Executive Director is satisfied that the application is justified and that aviation safety is not likely to be compromised but the request for extension must be submitted prior to the expiration of the check or training.
- (6) Completion of a training or check requirement at any time during the periods specified in paragraphs (4) or (5) must be considered as completed in the month due for calculation of the next due date.

Flight crew proficiency checks and initial type rating

135.03.8 (1) A flight crew member must undergo a proficiency check, referred to in this Part, in respect of an aeroplane with a turbo fan which includes a light jet, at least once every six months in a flight simulator, approved for the purpose.

(2) If a flight crew member undergoes an initial type rating for a turbo fan aeroplane on an actual aircraft, an approved simulator course must be completed within six months of initial type rating.

(3) An operator may be granted permission to deviate from a proficiency check requirement for a particular type of aeroplane for a period not exceeding six months but the operator must demonstrate a satisfactory equivalent of the requirement.

(4) The Executive Director may, on application, exempt an operator from the requirements of subregulations (1) and (2) where the operator submits proof that –

- (a) a flight simulator is not available;
- (b) a flight simulator does not exist for a particular aeroplane in which the contemplated abnormal and emergency procedures may be simulated; or
- (c) the relevant abnormal or emergency procedures can be safely carried out in the particular concerned aircraft, or in a similar aircraft.
- (5) A permission referred to in subregulation (3) and an exemption granted in terms of subregulation (4) must be issued on a case by case basis upon consideration of a safety case and risk assessment, and must be withdrawn when a suitable device becomes available.
- (6) When an operator is granted a permission to deviate from a current proficiency check requirement, a subsequent proficiency check must be performed on a simulator unless it is proven that a simulator does not exist.

SUBPART 4 DOCUMENTATION AND RECORDS

Documentary requirements

135.04.1 (1) An operator must ensure that, in addition to the requirements in regulation 91.03.1, the following documents or electronic equivalents are carried on board an aeroplane during flight –

- (a) a copy of the operational flight plan;
- (b) a special loads notification (notification to captain), if applicable;
- (c) an insurance certificate or proof of insurance;
- (d) a certified copy of the latest updated air operator certificate and operations specifications;
- (e) a load and trim sheet referred to in regulation 135.04.9;
- (f) a copy of the standard operating procedures or an aircraft operating manual, as applicable;
- (g) a copy of the operations manual referred to in regulation 135.04.2 or the portions of it required to be carried;
- (h) a copy of dangerous goods report as specified in Part 92, if applicable; and
- (i) copies of documents required to be carried on board in terms of regulation 91.03.1.

(2) An operator must ensure that the following documents are retained in a safe place at the first point of departure in respect of each flight undertaken by the aeroplane:

- (a) a copy of the operational flight plan;
- (b) copies of the relevant parts of the flight folio or technical log;
- (c) the load and trim sheet referred to in regulation 121.04.9;
- (d) the passenger list or cargo manifest;
- (e) the notification to captain, if applicable; and
- (f) a general declaration in the case of an aeroplane engaged in international flights.

(3) Except when otherwise instructed by the Executive Director, the documents referred to in subregulation (2) must be retained at the operator's main base of operations, or other location if approved by the Executive Director, for a period of at least 90 days.

Operations manual

135.04.2 (1) An operator must prepare an operations manual containing all the information required under this Part and setting out the manner in which the operator will operate the air service for which the operator is licensed in terms of the Air Services Act.

- (2) The operator must ensure that –
 - (a) all parts of the operations manual are consistent and compatible in form and content and must not contravene the conditions contained in the air operator certificate or operations specifications issued to the operator in terms of regulation 135.06.3;
 - (b) the operations manual can be readily amended;
 - (c) the operations manual contains an amendment control page and a list of effective pages that are in effect showing the effective date for each page in the operations manual; and
 - (d) the operations manual has the date of the last amendment to each page specified on that page that agrees with the list of effective pages.
- (3) An operator must submit the operations manual in duplicate to the Executive Director for approval.
- (4) If the Executive Director is satisfied that the operator –
 - (a) will comply with the provisions of regulation 135.06.7; and
 - (b) will not operate the air service concerned contrary to any provision of the Act, or the Air Services Act,

the Executive Director must certify in writing on both copies of the operations manual that the operations manual has been approved and must return one copy of the approved operations manual to the operator.

- (5) An operator must amend its operations manual –
 - (a) where there is a change in any aspect of the operator's operation;
 - (b) where the operations manual no longer meets the requirements of these regulations or associated technical standards; or
 - (c) when so required by the Executive Director.
- (6) An operator must submit an amendment to its operations manual in duplicate to the Executive Director for approval and if the Executive Director is satisfied that the operator will comply with the provisions of subregulation (4), the Executive Director must certify in writing on both copies of the amendment to the operations manual that the amendment has been approved and must return one copy of the approved amendment to the operator.
- (7) An operator must at all times operate its aeroplanes in accordance with the approved operations manual or an approved amendment to its approved operations manual.
- (8) An operator must –
 - (a) ensure that all operations personnel are able to understand the technical language used and that the information provided will ensure that the personnel are properly instructed in their particular duties and responsibilities and the relationship of the duties to the operation as a whole;

- (b) ensure that every flight is conducted in accordance with the operations manual and that those parts of the operations manual which are required for the conduct of a flight are easily accessible to the crew members on board during flight time;
- (c) make the operations manual available for the use and guidance of operations personnel;
- (d) provide the crew members with their own personal copy of the sections of the operations manual which are relevant to the duties assigned to them and designating such crew members as operations manual holders;
- (e) provide each operations manual holder with copies of all amendments after approval by the Executive Director and ensure that the operations manual holders do insert the amendments issued to them prior to their next flight assignment; and
- (f) keep the operations manual in a safe place.

(9) The structure and contents of the operations manual referred to in subregulation (1) must be as provided for in Document NAM-CATS-OPS 135.

Standard operating procedures

135.04.3 (1) An operator must compile standard operating procedures for each aeroplane type being operated and make them available during flight time to all flight crew members assigned to the aeroplane and each flight crew member must operate the aeroplane in accordance with the procedures.

(2) The operator must provide the portions of the standard operating procedures to the operator's employees or agents if required in the performance of their duties.

(3) The standard operating procedures must meet the requirements of, and contain the information specified in Document NAM-CATS-OPS 135.

(4) The operator must ensure each flight crew member has access to the standard operating procedures during flight time and that the standard operating procedures are current.

(5) The operator must publish the standard operating procedures as a stand-alone document as part of the manual system or include them in an aircraft operating manual that meets the requirements of Document NAM-CATS-OPS 135.

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

Aeroplane flight manual

135.04.4 (1) An operator must maintain and operate its aeroplanes in accordance with the approved aircraft flight manual required by regulation 91.03.2.

(2) An operator must maintain a system that ensures timely receipt and insertion of all aircraft flight manual revisions as published by the aeroplane manufacturer or as required by the Executive Director.

(3) Where an operator provides an aircraft operating manual that meets the requirements of subregulation (2) an aircraft flight manual referred to in regulation 91.03.2 is not required to be carried on board the aeroplane.

Operational flight plan

135.04.5 (1) An operator must ensure that an operational flight plan that meets the requirements specified in Document NAM-CATS-OPS 135 is completed for each flight undertaken by its aeroplanes in terms of this Part.

(2) The procedures for the use of the operational flight plan and a copy of it must be contained in the operations manual referred to in regulation 135.04.2.

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

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

Flight time and duty period records

135.04.6 (1) An operator must -

(a) maintain current flight time and duty period records of all flight crew members in the 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 flight crew member.

(2) A flight crew member who is employed by more than one operator or otherwise accumulates flight time outside of his or her employment, must maintain an accurate record of flight time and duty periods and must provide copies of the record to all operators by whom the flight crew member is employed.

(3) While a flight crew member is responsible to report all flight activity, each employer is responsible to ensure the flight crew member concerned does not exceed the limits specified in the flight time and duty scheme of the operator referred to in regulation 135.02.10.

Records of emergency and survival equipment

135.04.7 (1) An operator must compile a list of all the survival and emergency equipment to be carried in the aeroplane and must have the list available at all times for immediate communication to rescue coordination centres.

(2) The survival and emergency equipment list must be included in the operations manual referred to in regulation 135.04.2.

(3) The format and minimum information to be included in the survival and emergency equipment list must be as specified in Document NAM-CATS-OPS 91.

Training records

135.04.8 (1) An operator must establish a training file for each person required to receive training and retain on the file a record of all training and checking required in terms of Subpart 3 and the records of training and checking must contain at least the information specified, and be retained for the period of time specified, in Document NAM-CATS-OPS 135.

(2) An operator must establish procedures to make an employee's training file available for supervised review by the employee but all training files must remain in the custody of the operator.

Load and trim sheet

135.04.9 (1) An operator must ensure that no flight is undertaken by the aeroplane unless the person superintending the loading of the aeroplane has completed and certified a load and trim sheet.

(2) A pilot-in-command may not conduct a take-off unless he or she has accepted the load and trim sheet as provided in Document NAM-CATS-OPS 135.

(3) A load and trim sheet must be completed in duplicate and one copy must be carried in the aeroplane and one copy must be retained in accordance with the provisions of regulation 135.04.1.

(4) The minimum contents of a load and trim sheet must be as provided for in Document NAM-CATS-OPS 135.

Aeroplane search procedure checklist

135.04.10 (1) An operator must ensure that there is on board a checklist of the procedures to be followed in searching for a bomb in case of suspected sabotage and for inspecting aeroplanes for concealed weapons, explosives or other dangerous devices when a well-founded suspicion exists that the aeroplane may be the object of an act of unlawful interference.

(2) The checklist referred to in subregulation (1) must be supported by guidance on the appropriate course of action to be taken should a bomb or suspicious object be found and information on the least-risk bomb location specific to the aeroplane where the information is available from the manufacturer, including where appropriate, any means of attenuating and directing the blast for use at the least-risk bomb location.

Preservation of documents

135.04.11 (1) An operator must retain any document required in terms of this Subpart for the period of time specified in this Subpart even where, prior to the expiry of the retention period, the operator ceases to maintain ownership or possession of the aeroplane or employ the personnel concerned.

(2) Completed flight preparation forms must be kept by the operator for a period of three months.

Air traffic services flight planning for a series of flights

135.04.12 (1) An operator must ensure that an air traffic services flight plan is completed for each flight operated under this Part unless the flight is operated on a series of flights as provided in subregulation (2) and for each sector, alerting service has not been requested and the aeroplane does not –

- (a) depart or arrive at a controlled aerodrome;
- (b) operate within or transit through any controlled or advisory airspace; or
- (c) operate within an airway or advisory route unless crossing at the right angles.

(2) For the purposes of subregulation (1), a series of flights is considered to occur as long as the following criteria are met –

- (a) the series of flights must not result in flight time longer than 90 minutes in total;
- (b) no individual sector must be longer than 30 minutes; and
- (c) the time spent on the ground at each en-route stop must not exceed 30 minutes.

SUBPART 5 AEROPLANE INSTRUMENTS AND EQUIPMENT

General

135.05.1 (1) In addition to the minimum equipment necessary for the issue of a certificate of airworthiness, the instruments and equipment specified in the following paragraphs must be installed in an aeroplane according to the aeroplane used and to the circumstances under which the flight is to be conducted.

(2) The instruments and equipment required under this Subpart, including their installation, must be approved or accepted by the Executive Director.

Approval of instruments and equipment

135.05.2 (1) For the purposes of this Subpart, any reference to the initial date of a type certificate or certificate of airworthiness means the first time that type certificate or certificate of airworthiness was issued for that aircraft type.

(2) An operator must ensure that a flight does not commence unless the instruments and equipment required under this Subpart, or otherwise installed on an aircraft are such that they will enable a flight crew to control the flight path of the aircraft, carry out any required procedural manoeuvres and observe the operating limitations of the aircraft in the expected operating conditions and are –

- (a) approved and installed in accordance with the requirements, including operational and airworthiness requirements, applicable to the instruments and equipment; and
- (b) in a condition for safe operation of a kind being conducted, except as provided for in minimum equipment list.
- (3) An operator must not be required to obtain approval for –
 - (a) fuses referred to in regulation 91.04.2;
 - (b) an independent portable light for each required crew member, readily accessible to the crew member when seated at his or her designated station 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 91.04.13;
 - (e) megaphones referred to in regulation 91.04.21;
 - (f) survival equipment referred to in regulations 91.04.24 and 91.04.25; and
 - (g) medical equipment referred to in regulation 135.05.9.

(4) An agent used in a built-in fire extinguisher for each lavatory disposal receptacle for towels, paper or waste in an aeroplane which was first issued with a certificate of airworthiness on or after 31 December 2011, and an extinguishing agent used in a portable fire extinguisher in an aeroplane which was first issued with a certificate of airworthiness on or after 31 December 2016 must –

- (a) meet the applicable specified minimum performance requirements; and
- (b) not be of a type listed in the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer.

(5) Information regarding extinguishing agents to be used in an aeroplane is contained in Document NAM-CATS-OPS 135.

(6) A person must not conduct a take-off in an aeroplane with an instrument or equipment that is unserviceable or that has been removed, where the instrument or equipment is required by –

- (a) the standards of airworthiness that apply to a type of flight being operated;
- (b) any equipment list published by an aeroplane manufacturer indicating aeroplane equipment that is required for an intended flight;
- (c) an air operator certificate;
- (d) an airworthiness directive; or
- (e) this Part.

Flight, navigation and associated equipment for aeroplanes operated under visual flight rules

135.05.3 (1) An operator may not operate the aeroplane in accordance with visual flight rules, unless the aeroplane is equipped with –

- (a) a magnetic compass;
- (b) an accurate time-piece showing the time in hours, minutes and seconds;
- (c) a sensitive pressure altimeter with a subscale setting, calibrated in hectopascals, adjustable for any barometric pressure setting likely to be encountered during flight;
- (d) an airspeed indicator system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing;
- (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 on the flight deck the outside air temperature in degrees Celsius.

(2) The second pilot's station must 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 system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing;
- (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) For flights, the duration of which does not exceed 60 minutes, which commence and end at the same aerodrome, and which remain within 25 nautical miles of the aerodrome, the instruments specified in subregulation (1)(f), (g) and (h), and subregulation (2)(d), (e) and (f), may be replaced by a turn-and-slip indicator, or a turn co-ordinator incorporating a slip indicator, or both an attitude indicator and a slip indicator.

Flight, navigation and associated equipment for aeroplanes operated under instrument flight rules or at night

135.05.4 (1) An operator may not operate the aeroplane in accordance with instrument flight rules or at night, unless the aeroplane is equipped with –

- (a) a magnetic compass;
- (b) an accurate time-piece showing 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 and altimeters must have counter drum-pointer or equivalent presentation;
- (d) 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;
- (e) a vertical-speed indicator;
- (f) a turn-and-slip indicator or a turn co-ordinator, incorporating a slip indicator;
- (g) an attitude indicator;
- (h) a stabilised direction indicator;
- (i) a means of indicating on the flight deck the outside air temperature in degrees Celsius;
- (j) an alternate source of static pressure for the altimeter and the airspeed and vertical-speed indicators;
- (k) a chart holder in an easily readable position which can be illuminated, if to be operated at night;

- (l) a power-failure warning device or vacuum indicator to show the power available for gyroscopic instruments from each power source; and
 - (m) a pressure altitude reporting transponder with a capability of providing pressure-altitude information with a resolution of 25 feet or better –
 - (i) for all aeroplanes for which the individual certificate of airworthiness is first issued after 1 January 2009; and
 - (ii) for all large turbine-engine aeroplanes after 1 January 2014.
 - (n) communication, navigation and surveillance equipment as provided for in Subpart 5 of Part 91.
- (2) An operator may not operate an aeroplane in instrument meteorological conditions, unless the aeroplane is equipped with –
- (a) in the case of a single-engine aeroplane, as provided in regulation 135.08.5;
 - (b) in the case of a multi-engine aeroplane, at least two independent electrical generating systems, each operated by separate engines and individually capable of powering all required instruments and equipment necessary for safe emergency operation of the aeroplane; and
 - (c) for all aeroplanes, at least two independent sources of energy, with means of selecting either, of which at least one is an engine-driven pump or generator, which are both able to drive all required gyroscopic instruments powered by, or to be powered by, that particular source, and installed in such a manner that failure of one instrument or source does not interfere with the energy supply, to the remaining instruments or the other energy source except where the rate-of-turn indicator of a single-engine aeroplane involved in all-cargo operations only, has a source of energy separate from the bank and pitch and direction indicators and for the purpose of this subregulation, each engine-driven source of energy of a multi-engine aeroplane must be on a different engine;
- (3) An operator may not operate aeroplanes required by these regulations or the type certificate of the aeroplane to be operated by two pilots unless the aeroplanes are equipped as provided in regulation 135.05.2(2).
- (4) In addition to the flight and navigation equipment referred to in subregulations (1), (2) and (3), a large aeroplane must be equipped with a single standby altitude indicator, capable of being used from either pilot's station which –
- (a) is powered continuously during normal operation and, after a total failure of the normal electrical generating system is powered from a source independent of the normal electrical generating system;
 - (b) 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;
 - (c) operates independently of any other attitude indicating system;
 - (d) is operative automatically after total failure of the normal electrical generating system and provides a clear indication on the instrument panel that the attitude indicator is being operated by emergency power; and

- (e) is appropriately illuminated during all phases of operation:

but if the standby altitude instrument system is capable of being used through flight altitudes of 360 degrees of pitch and roll, the turn-and-slip indicators may be replaced by slip indicators.

(5) Where the standby altitude indicator referred to in subregulation (4) has its own dedicated power supply, there must be an associated indicator, either on the instrument or instrument panel, when the power supply is in use.

(6) Instruments that are used by any pilot must be so arranged as to permit the pilot to see their indications readily from his or her station with the minimum practicable deviation from the position and line of vision normally assumed when looking forward along the flight path.

Altitude alerting system

135.05.5 An operator of a large turbine-engine aeroplane may not operate the aeroplane unless the aeroplane is equipped with an altitude alerting system capable of –

- (a) alerting the flight deck crew members upon approaching preselected altitude in either ascent or descent in sufficient time to establish level flight at the preselected altitude; and
- (b) alerting the flight deck crew members when deviating above or below a preselected altitude by at least an aural signal.

Terrain awareness and warning system

135.05.6 (1) All turbine-engine aeroplanes of a maximum certificated take-off mass in excess of 15 000 kilogrammes, for which the individual certificate of airworthiness is first issued on or after 1 July 1979, must be equipped with a terrain awareness and warning system.

(2) All turbine-engine aeroplanes of a maximum certificated take-off mass in excess of 5700 kilogrammes or certified to carry more than nine passengers, for which the individual certificate of airworthiness is first issued on or after 1 January 2010 must be equipped with terrain awareness and warning system which has predictive terrain avoidance function.

(3) All turbine-engine aeroplanes of a maximum certificated take-off mass in excess of 5 700 kilogrammes or authorised to carry more than nine passengers, must be equipped with a terrain awareness and warning system which has a predictive terrain avoidance function.

(4) As from 1 January 2013 all piston-engine aeroplanes of a maximum certificated take-off mass in excess of 5 700 kilogrammes or authorised to carry more than nine passengers must be equipped with a terrain awareness and warning system which provides the warnings contemplated subregulation (6)(a) and (c), warning of unsafe terrain clearance and a predictive terrain avoidance function.

(5) A terrain awareness and warning system must automatically provide a timely and distinctive warning to the flight crew when the aeroplane is in potentially hazardous proximity to the earth's surface.

(6) A terrain awareness and warning system must provide, unless otherwise specified in this regulations, warnings of the following circumstances –

- (a) excessive descent rate;

- (b) excessive terrain closure rate;
- (c) excessive altitude loss after take-off or go-around;
- (d) unsafe terrain clearance while not in the landing configuration as follows –
 - (i) gear not locked down; or
 - (ii) flaps not in a landing position; and
- (e) excessive descent below the instrument glide path.

(7) The terrain awareness and warning system equipment required by this regulation must meet the requirements specified in Document NAM-CATS-OPS 91.

(8) A person may not inhibit or otherwise render inoperative any required terrain awareness and warning system during flight time except in accordance with the approved aeroplane flight manual.

(9) An operator must implement database management procedures that ensure timely distribution and update of current terrain and obstacle data to terrain awareness and warning system.

(10) A turbine-engine aeroplane with a maximum certificated take-off mass of less than 5 700 kilogrammes and authorised to carry between five and nine passengers may be equipped with terrain awareness and warning system that provides –

- (a) warning stipulated in subregulation (6);
- (b) a warning of unsafe terrain clearance; and

a predictive terrain avoidance function.

Airborne weather radar equipment

135.05.7 (1) Subject to the provisions of subregulation (2), an operator may not operate an aeroplane at night or in instrument meteorological conditions in an area where thunderstorms or other potentially hazardous weather conditions, regarded as detectable with airborne weather radars, may be expected to exist along the route unless the aeroplane is equipped with airborne weather radar equipment.

(2) In the case of a non-pressurized aeroplane, the airborne weather radar equipment may, however, be substituted by other approved equipment, which is capable of detecting thunderstorms and other potentially hazardous weather conditions, and of providing the flight crew with bearing and distance of the detected conditions.

Equipment to clear windshield

135.05.8 An aeroplane with a maximum certificated take-off mass of more than 5 700 kilogrammes must be equipped at each pilot station with a means to maintain a clear portion of the windshield during precipitation.

First aid kit

135.05.9 (1) An operator may not operate an aircraft unless the aircraft is equipped with a first aid kit consisting of the medical supplies as provided for in Document NAM-CATS-OPS 135.

(2) An operator must carry out periodical inspections of the first aid kit specified in subregulation (1) to ensure that, as far as practicable, the contents of the first aid kit are in a condition necessary for their intended use.

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

(4) The first aid kit specified in subregulation (1) must be readily accessible to the crew or passengers.

Airborne collision avoidance system

135.05.10 (1) An operator of a large turbine-engine aeroplane may not operate the aeroplane unless –

(a) the aeroplane is equipped with a serviceable airborne collision avoidance system II meeting airborne collision avoidance system II specifications, as provided for in Document NAM-CATS-OPS 91; and

(b) the flight crew members have been trained in the use of airborne collision avoidance system as provided for in Document NAM-CATS-OPS 135.

(2) Despite the provisions of subregulation (1), the aeroplane may be flown –

(a) for the purpose of moving the aeroplane to a place to have an approved but unserviceable airborne collision avoidance system that is fitted to the aeroplane repaired, removed, substituted or overhauled; or

(b) if the aeroplane is fitted with an approved airborne collision avoidance system that is unserviceable at the beginning of the flight –

(i) for aeroplanes with an approved minimum equipment list, the aeroplane is operated in accordance with that minimum equipment list; or

(ii) for aeroplanes without an approved minimum equipment list –

(aa) if not more than 10 days have passed since the airborne collision avoidance system became unserviceable, excluding the day of discovery, or for the shorter duration as provided for by the authority responsible for a particular airspace; or

(bb) if the traffic advisories and resolution advisories are inoperative on the non-flying pilot side, the traffic advisories and resolution advisories elements and audio functions are operative on the flying pilot side, and on intercontinental flights the traffic advisories and resolution advisories functions are visible to the non-flying pilot.

(3) The pilot-in-command of an aeroplane that is fitted with a serviceable airborne collision avoidance system must take all reasonable steps to ensure that the system is activated at all times during flight, and that its use is consistent with the conditions required for the area of operation.

Passenger cabin signs and placards

135.05.11 (1) An operator must ensure the following information is conveyed to the passengers by means of signs or placards suitably conspicuous that will ensure each passenger on board the aeroplane is aware –

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

Flight recorders

135.05.12 (1) An operator must ensure that the aeroplanes required to be equipped with the flight recorders as provided in this Subpart are installed as specified in Document NAM-CATS-OPS 135 and meet the crashworthiness and fire protection specifications as provided therein.

(2) Flight recorders must be checked and inspected daily and on an annual basis as specified in Document NAM-CATS-OPS 135.

(3) Flight recorders must be deactivated upon completion of flight time following an accident or incident and the flight recorders must not be reactivated before their disposition to the accident or incident investigation team.

(4) An operator must ensure, to the extent possible, in the event the aeroplane becomes involved in an accident or a serious incident in which the aeroplane is not able to continue on its intended itinerary, the preservation of all related flight recorder records and, if necessary, the associated flight recorders and their retention in safe custody pending their disposition as determined in accordance with regulations related to aircraft accident and incident investigation.

(5) The flight recorder must not be switched off during flight time.

(6) An operator may not allow the use of recordings or transcripts of cockpit voice recorder, cockpit audio recording system, Class A airborne image recorder, and Class A airborne image recording system for purposes other than an investigation of an accident or incident, unless the recordings or transcripts are –

- (a) related to a safety event identified in a safety management system;
- (b) restricted to the relevant portions of a de-identified transcript of the recording, and are subject to the protections accorded by Part 140;
- (c) sought for use in criminal proceedings not involving an accident or incident investigation, and are subject to the protections stipulated in Part 140; or
- (d) used for inspections of flight recorder systems as provided in Part 135 and its associated Document NAM-CATS-OPS 135.

(7) An operator may not allow the use of recordings or transcripts of flight data recorder, aircraft data recording system, Class B and Class C airborne image recorders, and airborne image recording systems for purposes other than the investigation of an accident or incident in terms of Regulations related to aircraft accident and incident investigation, unless the recordings or transcripts are subject to the protections stipulated in Part 140 and are –

- (a) used by an operator for airworthiness or maintenance purposes;
- (b) used by an operator in an operation of a flight data analysis programme required in terms of this Part;
- (c) sought for use in proceedings not related to an event involving an accident or incident investigation;
- (d) de-identified; or
- (e) disclosed under secure procedures.

Flight data recorders

135.05.13 (1) An operator must ensure that the aeroplane specified in Document NAM-CATS-OPS 135 is equipped and operated with the flight data recorder specified therein.

(2) An operator must ensure that the flight data recorder required by subregulation (1) complies with the specifications provided for in Document NAM-CATS-OPS 135.

(3) The parameters of the flight data recorder must be determined to be within the ranges, accuracies and recording intervals as provided for in Document NAM-CATS-OPS 135 and, where required by subregulation (1), must comply with the requirements of –

- (a) a Type I/IA flight data recorder capable of recording the parameters that accurately determine the aeroplane flight path, speed, altitude, engine power, configuration and operation; or
 - (b) a Type II/IIA flight data recorder capable of recording the parameters that accurately determine the aeroplane flight path, speed, altitude, engine power and configuration of lift and drag devices.
- (4) An operator may not operate an aeroplane equipped with a flight data recorder using -
- (a) metal foil;
 - (b) photographic film technology; or
 - (c) from 1 January 2016, magnetic tape.

(5) The flight data recorder required by subregulation (1) must be capable of retaining the data recorded during at least the last 25 hours of its operation except for the Type IIA flight data recorder which must be capable of retaining the information recorded during at least the last 30 minutes of its operation.

(6) The data obtained from a flight data recorder must be obtained from aeroplane sources which enable accurate correlation with information displayed to the flight crew.

- (7) The flight data recorder must start automatically to record the data prior to the aeroplane being capable of moving under its own power and must stop automatically after the aeroplane is incapable of moving under its own power.
- (8) An aeroplane may commence a flight with the flight data recorder inoperative but –
- (a) for aeroplanes with an approved minimum equipment list, the aeroplane must be operated in accordance with that minimum equipment list and the minimum equipment list must incorporate the provisions of paragraph (b); or
 - (b) for aeroplanes without an approved minimum equipment list –
 - (i) the aeroplane must not depart from an aerodrome where repairs or replacements to the flight data recorder can be made;
 - (ii) the aeroplane must not exceed six further consecutive flights with the flight data recorder unserviceable;
 - (iii) not more than 48 hours must have elapsed since the flight data recorder became unserviceable; and
 - (iv) the flight data recorder must not be a cockpit voice recorder combined with the flight data recorder and the cockpit voice recorder must be serviceable and functioning in accordance with the requirements of regulation 135.05.13.

Cockpit voice recorders

135.05.14 (1) An operator must ensure each aeroplane operated under this Part is equipped with a cockpit voice recorder as specified in Document NAM-CATS-OPS 135.

(2) The operator must ensure that the cockpit voice recorder required by this Subpart complies with the specifications set out in Document NAM-CATS-OPS 135.

- (3) The cockpit voice recorder must record, with reference to a time scale –
- (a) voice communications transmitted from or received on the flight deck or in the cockpit by radio;
 - (b) the aural environment of the flight deck or cockpit, including without interruption, the audio signals received from each microphone in use;
 - (c) voice communications of flight crew members on the flight deck or in the cockpit using the interphone system of the aeroplane, if installed;
 - (d) voice or audio signals identifying navigation or approach aids introduced into a headset or speaker; and
 - (e) voice communications of flight crew members on the flight deck or crew members in the cockpit using the public address system of the aeroplane, if installed.
- (4) The cockpit voice recorder must –
- (a) be capable of retaining information recorded during at least the period of time specified in Document NAM-CATS-OPS 135;

- (b) start automatically to record the aeroplane moving under its own power and continue to record, until the termination of the flight when the aeroplane is no longer capable of moving under its own power; and
 - (c) if possible, start to record the cockpit checks prior to engine start at the beginning of the flight, until the cockpit checks immediately following engine shutdown at the end of the flight.
- (5) The cockpit voice recorder may be combined with a flight data recorder referred to in regulation 135.05.13.
- (6) A person may not operate an aeroplane equipped with a cockpit voice recorder or cockpit audio recording system using magnetic tape or wire.
- (7) An aeroplane may commence a flight with the cockpit voice recorder inoperative but –
- (a) for aeroplanes with an approved minimum equipment list, the aeroplane must be operated in accordance with that minimum equipment list and the approved minimum equipment list must incorporate the provisions of paragraph (b); or
 - (b) for aeroplanes without an approved minimum equipment list –
 - (i) the aeroplane must not take-off from an aerodrome where repairs or replacements to the cockpit voice recorder can be made;
 - (ii) the aeroplane must not exceed six further consecutive flights with the cockpit voice recorder unserviceable;
 - (iii) not more than 48 hours must have elapsed since the cockpit voice recorder became unserviceable; and
 - (iv) any flight data recorder required to be carried must be operative, unless the flight data recorder is combined with a cockpit voice recorder.

Data link recorders

135.05.15 (1) All aeroplanes for which the individual certificate of airworthiness was first issued after 1 January 2016, which utilise any of the data link communications applications listed in Document NAM-CATS-OPS 135 and are required to carry a cockpit voice recorder must record on a flight recorder, all data link communications messages.

(2) All aeroplanes which are modified on or after 1 January 2016 to install and utilise any of the data link communications applications listed in Document NAM-CATS-OPS 135 and are required to carry a cockpit voice recorder must record on a flight recorder the data link communications messages.

(3) Sufficient information to derive the content of the data link communications message and, whenever practical, the time the message was displayed to or generated by the crew, must be recorded.

Lifesaving equipment during flight over open water

135.05.16 (1) An operator may not operate an aeroplane over water at a distance of more than 50 nautical miles from shore, in any operation described in subregulation (2) unless

there is carried on board one life jacket or equivalent individual flotation device for each person on board, stowed in a position easily accessible from each seat or berth occupied by the person.

- (2) The equipment specified in subregulation (1) applies to –
 - (a) landplanes having two or more power-units, where in the event of the failure of one power-unit for aeroplanes having two power-units or two power-units for aeroplanes having three or more power-units, a ditching would be required;
 - (b) for single-engine landplanes, when operating over water beyond gliding distance from the shore; or
 - (c) when taking off or landing at an aerodrome where the aeroplane flight path is over water and in the opinion of the Executive Director, should any mishap occur, there would be a likelihood of the aeroplane ditching into the water.

Equipment requirements for aeroplanes on long range over-water flights

135.05.17 (1) An aeroplane used on a route where it may be flown over water must be installed with life-saving equipment under the following circumstances:

- (a) if the aircraft may operate at a distance corresponding to at least 120 minutes or at cruising speed or 400 nautical miles, whichever is the lesser, away from land suitable for making an emergency landing; and
 - (b) in the case of a twin-engine aircraft with one engine inoperative or a 3 or more engine aircraft with two engines inoperative, if it may be required to operate at a distance corresponding to at least 30 minutes or 100 nautical miles, whichever is lesser, for emergency landing.
- (2) Life-saving equipment referred to in subregulation (1) must include –
- (a) life-saving rafts in sufficient numbers to carry all persons on board, stowed so as to facilitate their ready use in an emergency, and must include means of sustaining life as is appropriate to the flight to be undertaken;
 - (b) equipment for making pyrotechnical distress signals as provided for in Document NAM-CATS-OPS 91; and
 - (c) for an aeroplane of a maximum certificated take-off weight of over 27 000 kilogrammes, a securely attached underwater locating device operating at a frequency of 8.8 kilohertz which has the capability to operate for a minimum of 30 days.
- (3) An underwater locating device referred to in subregulation (2)(c) must not be installed in wings or empennage of an aeroplane.
- (4) A life jacket or equivalent individual flotation device provided in an aeroplane must be equipped with a means of electric illumination for purpose of facilitating the location of persons.
- (5) Life raft survival radio equipment and information requirements for extended over water flights must be as provided for in Document NAM-CATS-OPS 91.

Equipment requirements for seaplanes

135.05.18 All seaplanes, including amphibian aeroplanes operated as seaplanes, for all flights must be equipped with –

- (a) one life jacket, or equivalent individual flotation device, for each person on board, stowed in a position easily accessible from the seat or berth of the person for whose use it is provided;
- (b) equipment for making the sound signals specified in the International Regulations for Preventing Collisions at Sea, where applicable; and
- (c) one sea anchor (drogue).

Emergency locator transmitter

135.05.19 (1) An operator may not operate an aeroplane under this Part unless the aeroplane is equipped with –

- (a) at least one automatic emergency locator transmitter or two emergency locator transmitters of any type as provided for in Document NAM-CATS-OPS 91;
- (b) where the aeroplane is of a type for which the individual certificate of airworthiness was first issued after 1 July 2008 –
 - (i) at least two emergency locator transmitters, one of which must be automatic; or
 - (ii) at least one emergency locator transmitter of any type as provided for in Document NAM-CATS-OPS 91 but the aeroplane must have the capability to autonomously transmit information regarding its position at least once every minute when in distress as provided for in Document NAM-CATS-OPS 135.

(2) Emergency locator transmitter equipment carried in terms of subregulation (1) must operate and be installed as provided for in NAM-CATS-OPS 91.

(3) Emergency locator transmitters required to be fitted in terms of this regulation, must be capable of transmitting on the frequencies 121,5 megahertz and 406 megahertz simultaneously.

(4) Despite subregulations (1) and (2), an aeroplane may be operated without a serviceable emergency locator transmitter where –

- (a) it is operated in accordance with a minimum equipment list approved by the Executive Director; or
- (b) where a minimum equipment list has not been approved by the Executive Director in respect of the aeroplane, the operator –
 - (i) repairs or removes the emergency locator transmitter at the first aerodrome at which repairs or removal can be accomplished;
 - (ii) on removal of the emergency locator transmitter from the aeroplane, sends the emergency locator transmitter to a maintenance facility;
 - (iii) displays on a readily visible placard within the aeroplane cockpit, for the period of removal of the emergency locator transmitter from the aeroplane, a notice stating that the emergency locator transmitter has been removed and setting out the date of removal; and

- (iv) installs a serviceable emergency locator transmitter within five days after the date of removal.

Microphones

135.05.20 All flight crew members required to be on flight deck duty must communicate through boom or throat microphones below the transition level or altitude.

Fire extinguisher

135.05.21 (1) An agent used in a built-in fire extinguisher for a lavatory disposal receptacle for towels, paper or waste in an aeroplane for which the individual certificate of airworthiness was first issued on or after 31 December 2011 and an extinguishing agent used in a portable fire extinguisher in an aeroplane for which the individual certificate of airworthiness is first issued on or after 31 December 2018 must –

- (a) meet the applicable minimum performance requirements as provided for in Document NAM-CATS-OPS 135; and
- (b) not be of a type mentioned in Document NAM-CATS-OPS 135.

(2) The requirements regarding the extinguishing agents to be used in fire extinguishers is specified in Document NAM-CATS-OPS 135.

Turbo-jet aeroplanes – forward-looking wind shear warning system

135.05.22 (1) A turbo-jet aeroplane of a maximum certificated take-off mass in excess of 5 700 kilogrammes or authorised to carry more than nine passengers should be equipped with a forward-looking wind shear warning system.

(2) A forward-looking wind shear warning system referred to in subregulation (1) should be capable of providing a pilot with –

- (a) a timely aural and visual warning of wind shear ahead of an aircraft;
- (b) information on whether to execute a missed approach, go-around, or an escape manoeuvre, if necessary;
- (c) an indication on when limits on automatic landing equipment are being approached, when the equipment is in use.

SUBPART 6 AIR OPERATOR CERTIFICATE

Requirements to hold air operator certificate

135.06.1 (1) An operator may not operate an aeroplane unless the operator is the holder of and complies with the conditions of a valid air operator certificate including the operations specifications attached to that certificate, issued in terms of this Part and an air services licence issued in terms of the Air Services Act.

(2) The holder of an air operator certificate must not wet lease in more than 50 percent of its entire fleet nor more than 50 percent of the aeroplane type in the fleet having the greatest maximum certificated take-off mass.

(3) The operations specifications of an air operator certificate must contain a record of at least the type, model or series, and registration of each aeroplane approved for use by an operator.

Application for issue or amendment of air operator certificate and operations specifications

135.06.2 (1) An application for the issue or amendment of an air operator certificate or associated operations specifications must be made to the Executive Director in the form and manner specified in Document NAM-CATS-OPS 135 and must be accompanied by the applicable fee specified in Part 187.

(2) The applicant must demonstrate in the application that the applicant –

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

(3) The submission of an application under this Subpart does not place any obligation upon the Executive Director to issue an air operator certificate or operations specifications until he or she has been given reasonable time to review the application and the application has been assessed in terms of regulation 135.06.3.

(4) The holder of an air operator certificate may add to its air operator certificate an aeroplane registered on another air operator certificate but –

- (a) the aeroplane must not be registered on more than three air operator certificates;
- (b) the aeroplane must be maintained by only one aircraft maintenance organisation;
- (c) the manual of procedures or maintenance control manual, as applicable, for all operators and the operations specifications for each operator, must specify the aircraft maintenance organisation responsible for the maintenance of each shared aeroplane, by aeroplane registration number;
- (d) the aeroplane flight folio used must be the same for all operators, such that there is but one continuous record of the aeroplane's activities, and the flight crew members must be trained in the procedures for completion of the flight folio;
- (e) there must be one method with respect to the entry, reporting and rectification of defect procedures and the flight crew members must be trained in those procedures;
- (f) the flight crew members must use the minimum equipment list approved for the aeroplane and must be trained in the minimum equipment list procedures for that particular aeroplane, if applicable, and the operations manual must specify the procedures the flight crew are to follow in the event contact with maintenance personnel is needed; and
- (g) the flight crew members must receive ground and flight training covering any differences between the models operated by the operator and that being added to the air operator certificate, including at least –
 - (i) safety equipment contained on board;

- (ii) ancillary equipment inclusive of navigational aids, auto flight system, flight director or flight management system, airborne collision avoidance system, terrain awareness and warning system and weather radar; and
- (iii) systems differences, engine or airframe limitations, performance considerations and operating characteristics, and the results of the training recorded on the flight crew member's training file.

(5) The personnel referred to in subregulation (2)(a) must be comprised of the following positions, as applicable to the type of operation proposed, the incumbents of which must be approved by the Executive Director –

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

(6) The nominated post-holders required by subregulation (5), must meet the qualifications and are responsible for the functions specified in Document NAM-CATS-OPS 135.

(7) Any person who held any of the positions listed in subregulation (5) prior to the commencement of these regulations is considered to meet the qualifications required by Document NAM-CATS-OPS 135 but –

- (a) for a nominated post-holder, the person must be satisfactory to the Executive Director;
- (b) for an incumbent, that incumbent must have discharged his or her responsibilities to the satisfaction of the Executive Director; and
- (c) for a nominated or incumbent post-holder, the person must meet the qualifications specified in Document NAM-CATS-OPS 135 within six months from the commencement of these regulations.

(8) When, after consideration of the scope and size of an operator, the Executive Director is of the opinion that it would be appropriate, he or she may approve the assignment of more than one position to one person or approve different positions and the scope and size of the operator's operations for consideration by the Executive Director are in NAM-CATS-OPS 135.

(9) A person who has been approved for one or more management positions in terms of subregulation (5)(a) to (d) may not hold a management position at another operator.

(10) Despite any provision to the contrary in these regulations, the Executive Director may withdraw any approval where any manager no longer meets the qualifications required for that position or fails to discharge the responsibilities of that position.

- (11) The Executive Director may amend an air operator certificate if –

- (a) he or she determines that safety in commercial air transport and the public interest requires the amendment; or
- (b) the holder of the air operator certificate applies for an amendment, and the Executive Director determines that safety in commercial air transport and the public interest requires the amendment.

(12) If the Executive Director stipulates in writing that an emergency exists requiring immediate amendment in the public interest with respect to safety in commercial air transportation, the amendment becomes effective on the date the holder of an air operator certificate receives the notice.

(13) A holder of an air operator certificate may make representations to the Executive Director against the amendment contemplated in regulation (11)(a) or (12), but must continue to operate in accordance with the amendment, unless it is subsequently varied or withdrawn.

(14) Amendments approved by the Executive Director, other than emergency amendments referred to in subregulation (12), become effective 30 days after notice to the holder of an air operator certificate, unless the holder of the air operator certificate makes representations against the proposal as contemplated in subregulation (13) prior to the effective date.

(15) Amendments proposed by the holder of an air operator certificate must be made at least 30 days prior to the intended date of any operation under the proposed amendment.

(16) A person may not perform a commercial air transport operation for which an air operator certificate amendment is required, unless that person has received notice of the approval from the Executive Director.

Application, consideration of and issue of air operator certificate or operations specifications

135.06.3 (1) In considering an application referred to in regulation 135.06.2 the Executive Director may conduct any investigation he or she considers necessary to determine the applicant's ability to meet the requirements specified in this Part.

(2) An application must be granted and the appropriate aviation document issued, containing the conditions as the Executive Director determines, if the Executive Director is satisfied that

—

- (a) the applicant will comply with the provisions of its operator certificate and operations specifications; and
- (b) the applicant will not operate the air service concerned contrary to any provision of the Act, or the Air Services Act.

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

(4) An air operator certificate and associated operations specifications must be issued in a form specified, and contain at least the information in Document NAM-CATS-OPS 135.

Validity and status of air operator certificate

135.06.4 (1) Unless otherwise specified by the Executive Director, an air operator certificate remains valid and in force until suspended or cancelled but –

- (a) the operator must submit 30 days prior to the anniversary date of initial issue, the appropriate application form and annual fee as provided for in Part 187;
- (b) the operator successfully completes the audits and inspections carried out by the Executive Director, including the satisfactory resolution of any findings reported to the operator by the Executive Director;
- (c) the operator continues to meet the requirements for issue of an air operator certificate; and
- (d) the air operator certificate is not voluntarily returned to the Executive Director.

(2) An air operator certificate is not transferable to any other entity.

(3) Where an operator is notified by the Executive Director that its air operator certificate has been suspended or cancelled, the operator must return the air operator certificate to the Executive Director within seven days of the notification.

(4) A contracting state to the Chicago Convention must recognise as valid an air operator certificate issued by another contracting state to that Convention, but the requirements under which the certificate was issued must at least be equal to the applicable standards specified in this Part.

Safety and security inspections and audits

135.06.5 (1) An applicant for the issue of an air operator certificate must grant access to an authorised officer, inspector or authorised person to carry out the safety and security inspections and audits which may be necessary for consideration of the application.

(2) A non-compliance or finding made as a result of an inspection or audit conducted in terms of this Part must be categorised as provided for in Document NAM-CATS-OPS 135.

Administrative duties of air operator certificate holder

135.06.6 (1) The holder of an air operator certificate must keep the air operator certificate in a safe place and produce the air operator certificate to an authorised officer or inspector for inspection if so requested by the officer or inspector.

(2) An operator must advise the Executive Director of any changes in the personnel occupying the management positions specified in regulation 135.06.2 (5) and must submit the names and qualifications of a replacement person for the Executive Director's approval before effecting the change but in the case of a sudden departure of an incumbent, an operator must notify the Executive Director of its plan to ensure safety of operations while replacing the person.

(3) An operator must notify the Executive Director in the event of any change in the ownership of the operator, including the names and contact details of the new owners.

Register of air operator certificates

135.06.7 (1) The Executive Director must maintain a register of all air operator certificates issued in terms of these Regulations.

- (2) The register must contain the following particulars:
 - (a) the full name and, if any, the business name of the holder of the air operator certificate;
 - (b) the postal address of the holder of the air operator certificate;
 - (c) the number of the air operator certificate issued to the holder;
 - (d) particulars of the type of air service for which the air operator certificate was issued, including a list of operations specification issued;
 - (e) particulars of the category of aeroplane for which the air operator certificate was issued; and
 - (f) the date on which the air operator certificate was issued.
- (3) The particulars referred to in subregulation (2) must be recorded in the register within 30 days from the date on which the air operator certificate is issued.
- (4) The register must be kept in a safe place at the office of the Executive Director.
- (5) A copy of the register must be furnished, on payment of the applicable fee specified in Part 187, to any person who requests the copy.

Operator notification

135.06.8 If an operator has an operating base in a State other than Namibia, the operator must notify the Executive Director as well as the State in which the operating base is located.

Demonstration flights for initial application

135.06.9 (1) A person may not operate a large aeroplane in commercial air transport unless he or she first conducts satisfactory demonstration flights as required by the Executive Director in that aircraft type and as specified in Document NAM-CATS-OPS 135.

(2) A person may not operate an aeroplane in a specifically designated area, or use a specialised navigation system, or use a specific approval unless he or she conducts a satisfactory demonstration flight as required by the Executive Director and as specified in Document NAM-CATS-OPS 135.

(3) The Executive Director may authorise deviations from this Regulation if he or she finds that special circumstances make full compliance with the provisions of this Regulation unnecessary.

SUBPART 7 FOREIGN AIR OPERATOR PERMIT

Requirement for foreign air operator permit

135.07.1 (1) A foreign operator may not operate a foreign registered aeroplane engaged in international commercial air transport operations to, from or within Namibia, except under the authority of, and in accordance with the conditions of, a foreign air operator permit issued under this Subpart.

(2) Transportation of passengers, cargo or mail within Namibia by a foreign operator may only be undertaken as provided for in NAM-CATS- 121.

Application for foreign air operator permit or amendment of air operator permit

135.07.2 (1) An application for the issue of a foreign air operator permit must be –

- (a) made to the Executive Director in the appropriate form provided for in Document NAM-CATS-OPS 135; and
- (b) accompanied by -
 - (i) a declaration of competency issued in respect of each aeroplane concerned;
 - (ii) a copy of the valid air operator certificate or equivalent authorisation held by the applicant, which pertains to the operation covered by the application;
 - (iii) the applicable fee specified in Part 187; and
 - (iv) a statement certifying the availability of insurance in respect of the obligations and liabilities of the applicant which may arise from the operation covered by the application.

(2) Subject to the provisions of subregulation (5), an application for the issue of a foreign air operator permit must be submitted to the Executive Director at least 90 days before the date of commencement of the intended operation.

- (3) If the holder of a foreign air operator permit wishes to amend –
- (a) its name or principal place of business;
 - (b) the description of the type of operation;
 - (c) the type of aeroplane;
 - (d) the nationality and registration marks of the aeroplanes;
 - (e) the area of operation; or
 - (f) any condition,

specified on the permit, the operator must apply to the Executive Director for the amendment.

- (4) An application for the amendment of a foreign air operator permit must be –
- (a) made in the appropriate form set out in Document NAM-CATS-OPS 135; and
 - (b) accompanied by –
 - (i) a declaration of competency issued in respect of each aeroplane concerned;
 - (ii) a copy of the valid air operator certificate or equivalent authorisation held by the applicant, which pertains to the operation covered by the application;
 - (iii) the applicable fee specified in Part 187; and

- (iv) a statement certifying the availability of insurance in respect of the obligations and liabilities of the applicant which may arise from the operation covered by the application.

(5) Subject to the provisions of subregulation (5), an application for the amendment of a foreign air operator permit must be submitted to the Executive Director at least 30 days before the date of commencement of the intended amended operation.

(6) The Executive Director may condone a shorter period within which an application referred to in subregulation (1) or (3), as the case may be, is received, if the Executive Director is satisfied that the object of the operation or amended operation will be defeated if the application is not adjudicated within a shorter period.

Assessment of application and issue of permit

135.07.3 (1) In considering the application for the issue of a foreign air operator permit, or an amendment of the foreign air operator permit, the Executive Director may conduct the investigation which he or she considers necessary.

(2) The application must be granted and the permit issued if the Executive Director is satisfied that –

- (a) the applicant has the financial capability of conducting a safe operation within Namibia; and
- (b) the applicant will not conduct the operation concerned contrary to any provision of the Act or the Civil Aviation Act, 2016.

(3) For the purpose of subregulation (2), if the Executive Director is not satisfied, he or she must –

- (a) notify the applicant and state in the notification the reasons why he or she is not satisfied; and
- (b) grant the applicant the opportunity to rectify or supplement the defect within the period determined by the Executive Director, after which period the Executive Director must grant or refuse the application concerned.

(4) A foreign air operator permit must be issued in the manner specified in Document NAM-CATS-OPS 135, under the conditions which the Executive Director may determine.

(5) A foreign air operator permit must specify –

- (a) the name, nationality and principal place of business of the operator;
- (b) the date on which the permit was issued and its period of validity;
- (c) a description of the type of operation authorised;
- (d) the type of aeroplane authorised for operation;
- (e) the nationality and registration marks of each aeroplane authorised for operation;
- (f) the authorised area of operation; and

- (g) the conditions of the permit.

Period of validity

135.07.4 (1) A foreign air operator permit is valid -

- (a) for the period determined by the Executive Director, which period must not exceed 12 months, calculated from the date of issue of the permit;
- (b) for the number of flights determined by the Executive Director; or
- (c) for the number of flights, which have to be undertaken within the period, determined by the Executive Director.

(2) Despite subregulation (1), if the holder of a foreign air operator permit applies for its renewal at least 30 days prior to the expiry the permit, the permit remains valid until the holder is notified by the Executive Director of the result of the application for the renewal of the permit.

(3) The permit remains in force until it expires or is suspended by an authorised officer, inspector or authorised person, or cancelled by the Executive Director, in terms of regulation 135.07.9.

(4) The holder of a permit which expires must surrender the permit to the Executive Director.

(5) The holder of a permit which is suspended, must produce the permit upon suspension to the authorised officer, inspector or authorised person concerned for the appropriate endorsement.

(6) The holder of a permit which is cancelled, must, within 30 days from the date on which the permit is cancelled, surrender the permit to the Executive Director.

Transferability

135.07.5 A foreign air operator permit is not transferable.

Duties of holder of permit

135.07.6 (1) The holder of a foreign air operator permit must –

- (a) at all times during the operation within Namibia –
- (i) comply with –
- (aa) the appropriate requirements under this Part; and
- (bb) the conditions of the permit;
- (ii) hold a valid air operator certificate or equivalent authorisation; and
- (b) produce the permit to an authorised officer, inspector or authorised person for inspection, if so requested by the officer, inspector or person.

Renewal of permit

135.07.7 (1) The holder of a foreign air operator permit must at least 30 days immediately preceding the date on which the permit expires, apply for the renewal of the permit.

(2) The provisions of regulations 135.07.2(1) and 135.07.3 must apply with the necessary changes to an application made in terms of this regulation.

Safety inspections and audits

135.07.8 The holder of a foreign air operator permit must permit an authorised officer, inspector or authorised person to carry out the safety inspections and audits, including safety inspections and audits of its partners or subcontractors, which may be necessary to determine compliance with the appropriate requirements under this Part.

Suspension, revocation and variation of air operator certificate and foreign air operator permit

135.07.9 An air operator certificate or a foreign air operator permit may in accordance with regulation 13.01.4 be suspended, revoked or varied if the Executive Director is no longer satisfied that the operator can maintain an adequate organisation to ensure safe operations..

Register of permits

135.07.10 (1) The Executive Director must maintain a register of all foreign air operator permits issued, amended or renewed in terms of the regulations in this Subpart.

(2) The register must contain the following particulars:

- (a) The full name of the holder of the permit;
- (b) the postal address of the holder of the permit;
- (c) the telephone and telefax numbers of the holder of the permit;
- (d) the date on which the permit was issued, amended or renewed;
- (e) the number of the permit issued, amended or renewed;
- (f) the conditions of the permit;
- (g) the nationality of the holder of the permit; and
- (h) the date on which the permit was suspended, if applicable.

(3) The particulars referred to in subregulation (2) must be recorded by the Executive Director in the register within seven days from the date on which the permit was issued, amended, renewed or cancelled, as the case may be.

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

(5) A copy of the register must be furnished by the Executive Director, on payment of the applicable fee specified in Part 187, to any person who requests the copy.

**SUBPART 8
FLIGHT OPERATIONS**

DIVISION ONE: GENERAL

Routes and areas of operation and aerodrome facilities

135.08.1 (1) A person may not operate an aeroplane over any route or airway in instrument meteorological conditions unless –

- (a) in case of a single-engine aeroplane, the cloud ceiling at any point along a route of flight is not lower than that which would permit descent in visual meteorological conditions below a minimum en-route altitude published or established by an operator for the route or airway;
- (b) in case of a twin-engine aeroplane and in the event of failure of a critical engine –
 - (i) the aeroplane is capable of maintaining a minimum en-route altitude published or established by an operator for the route or airway; or
 - (ii) if the aeroplane is not capable of maintaining a minimum en-route altitude published or established by an operator for the route or airway and –
 - (aa) the aeroplane is able to maintain flight to a suitable landing area, a cloud base at any point along the route of flight is not lower than that which would permit descent in visual meteorological conditions below the minimum en-route altitude published or established by an operator for the route or airway and flight in visual meteorological conditions to a suitable landing area; or
 - (bb) the aeroplane is unable to maintain flight to a suitable landing area, a cloud base at any point along the route of flight is not lower than that which would permit descent in visual meteorological conditions below a minimum en-route altitude published or established by an operator for the route or airway;
- (c) in a case of an aeroplane having three or more engines, and in an event of failure of any two engines, the aeroplane is capable of maintaining a minimum en-route altitude published or established by an operator for the route or airway; and
- (d) in addition to the requirements specified in paragraphs (b)(i), (b)(ii)(aa) and (c), an aeroplane must be capable of landing at intended destination or alternate aerodrome in accordance with related landing performance criteria for the aeroplane.

(2) An operator of an aeroplane must select at least one destination alternate aerodrome for each instrument flight rules flight unless –

- (a) for an aerodrome other than an isolated aerodrome –
 - (i) two separate runways, arranged such that a closure of one cannot affect the operations of the other and each with an operational straight-in approach procedure, are available and usable by a flight crew at a destination aerodrome; and

- (ii) the duration of a flight from the departure aerodrome, or from a point of in-flight re-planning, to a destination aerodrome is such that, taking into account all operational information relevant to a flight, for a period of at least one hour before and one hour after the estimated time of arrival, a reasonable certainty exists that an approach and landing may be made under visual meteorological conditions; or
- (b) for a destination aerodrome that is isolated and for which no adequate destination alternate aerodrome exists –
 - (i) a standard instrument approach procedure is provided for for an aerodrome of intended landing and the associated navigation aids will be functional from two hours before time of arrival; and
 - (ii) available current meteorological information indicates that the following meteorological conditions will exist from two hours before time of arrival –
 - (aa) a cloud base of at least 1 000 feet above the minimum associated with the instrument approach procedure; and
 - (bb) visibility of at least 5.5 kilometres or of 4 kilometres more than the minimum associated with the procedure, whichever is greater.
- (3) An operator of an aeroplane must select at least two destination alternate aerodromes for each instrument flight rules flight when –
 - (a) appropriate weather reports or forecasts for a destination aerodrome, or any combination of the reports and forecasts, indicate that during a period commencing one hour before and ending one hour after an estimated time of arrival, the weather conditions will be below the applicable planning minima; or
 - (b) meteorological information is not available at a destination aerodrome.
- (4) An operator may not permit, and a pilot-in-command may not operate, a flight that is to be conducted in accordance with instrument flight rules, for which one or more destination alternate aerodromes are required, to be commenced unless an aerodrome meteorological forecast indicates that conditions for a period of at least one hour before until one hour after an estimated time of arrival at a destination alternate aerodrome will meet or exceed those specified in Document NAM-CATS-OPS 135.
- (5) An operator of an aeroplane must operate all flights in accordance with the route, aerodrome or other approvals and conditions pertaining to flight operations as are contained in the operator's air operator certificate.
- (6) An operator of an aeroplane must specify in its operations manual the procedures used to determine the minimum altitudes to be flown in order to meet the obstacle clearance requirements specified in regulation 135.07.24 and, for an operation in an uncontrolled airspace, the means for ensuring a navigational capability is maintained while operating on any route used therein.
- (7) An operator must ensure that –
 - (a) the equipment of the aeroplane intended to be used, complies with the minimum requirements for the planned operation;

- (b) unless an operation has been specifically approved by the Executive Director as provided for in Document NAM-CATS-OPS 135, an aeroplane may not be operated on a route where diversion from any point on a route, calculated in international standard atmosphere and still air conditions, to an adequate en-route alternate aerodrome that exceeds 180 minutes –
- (i) for an aeroplane with two turbine engines, at a one-engine inoperative cruise speed; and
 - (ii) for an aeroplane with more than two turbine engines, at an all-engine operating cruise speed; and
- (c) a written submission is made to the Executive Director in terms of Document NAM-CATS-OPS 135 when intending to operate beyond 120 minutes up to 180 minutes to an adequate enroute alternate aerodrome.
- (8) An operator of an aeroplane may not commence a flight unless it has been ascertained by every reasonable means available that the ground facilities and services, including meteorological and rescue firefighting services are –
- (a) available as required for a safe operation of an aeroplane and protection of the passengers;
 - (b) adequate for a type of operation being conducted; and
 - (c) functioning normally for their intended purpose.
- (9) An operator of an aeroplane must establish procedures in its operations manual that will ensure an operation can be safely conducted in the event that the rescue firefighting services at an aerodrome that may be used are or may be below that for which the aerodrome is certified, and the procedures must include a risk assessment.
- (10) An operator of an aeroplane must report without delay to a responsible authority any observed operational inadequacy of facilities referred to in subregulation (8).

Establishment of procedures

- 135.08.2** (1) An operator must –
- (a) establish for each aeroplane type, procedures, and instructions for ground personnel and crew members pertaining to 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 operating procedures in its operations manual referred to in regulation 135.04.2 are followed;
 - (c) ensure that a flight crew member does not perform any activities during critical phases of a flight other than those required for the safe operation of an aeroplane;
 - (d) ensure specific procedures are developed to instruct pilots with respect to rates of climb and descent in various stages of flight; and

- (e) unless otherwise specified in an air traffic control instruction, specify procedures by which –
 - (i) an aeroplane climbing or descending to an assigned altitude or flight level may do so at a rate less than 1 500 feet per minute throughout the last 1 000 feet of climb or descent to the assigned level; and
 - (ii) a pilot-in-command is made aware of another aircraft at or approaching an adjacent altitude or flight level.
- (2) The approved checklist system referred to in subregulation (1)(b) must include –
 - (a) an easy-to-use checklist for normal phases of flight operations;
 - (b) a quick reference-type checklist dealing with all malfunctions requiring the use of abnormal or emergency procedures;
 - (c) an amplified checklist that ensures all referenced check items are dealt with in accordance with the recommended procedures of the aeroplane manufacturer;
 - (d) an easy to locate and employ system of supplementary checks and procedures, if applicable; and
 - (e) any other check items relating to the use of equipment not installed at the time of aeroplane manufacture or not included in the check system provided for in the approved aeroplane flight manual.
- (3) The pilot-in-command is responsible for ensuring all check procedures, including checklists, are managed in accordance with the procedures specified in the operations manuals of the operator.

Competence of operations personnel

135.08.3 An operator must 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 the duties to the operation as a whole.

Use of air traffic services

135.08.4 An operator must ensure that air traffic services are used for all flights whenever available.

Additional requirements for operations of single engine turbine and piston powered aeroplanes at night or in instrument meteorological conditions

135.08.5 (1) Except as provided in subregulation (2) an operator may not operate a single-engine turbine powered aeroplane with passengers, cargo or combination of passengers and cargo on board in instrument meteorological conditions or night flight.

(2) An operator may only operate a single engine turbine powered aeroplane with passengers, cargo or combination of passengers and cargo on board in instrument meteorological conditions or night flight if the operator –

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

(b) complies with the applicable provisions in Document NAM-CATS-OPS 135.

(3) An operator may operate a single-engine aeroplane with cargo only on board in instrument meteorological conditions or night flight provided the operator –

(a) meets the requirements of subregulation (2); or

(b) is authorised to do so in its operation specifications; and

(c) complies with the provisions prescribed in Document NAM-CATS-OPS 135.

Defect reporting

135.08.6 (1) An operator must establish adequate inspection and reporting procedures to ensure that defective equipment is reported to the pilot-in-command of the aeroplane before take-off and where a defect is observed during flight, the pilot-in-command must be responsible to ensure the defect is recorded and reported in the manner established in the operator's operations manual.

(2) The procedures referred to in subregulation (1) must be extended to include the reporting to the operator of all incidents of exceeding engine or airframe limitations that may occur while the flight crew are embarked on the aeroplane.

(3) If any report of an incident, as specified in subregulation (2), has been received, the operator must compile and submit a report to the Executive Director within a month of having received the report.

Instrument approach and departure procedures

135.08.7 An operator may implement instrument approach and departure procedures, other than instrument approach and departure procedures referred to in regulation 91.07.15 but the instrument approach and departure procedures must be approved by –

(a) the appropriate authority of the State in which the aerodrome is located; or

(b) the Executive Director.

Environmental protection

135.08.8 (1) An operator must establish operating procedures for noise abatement as provided for in Part 139.

(2) Take-off and climb procedures for noise abatement specified by an operator for any one aeroplane type may vary for different aerodromes.

(3) An operator engaged in international operations must comply with the requirements relating to the monitoring, reporting and verification of annual carbon dioxide emissions as provided for in Part 91.

Additional requirements for single pilot operation under instrument flight rules or night visual flight rules flight

135.08.9 An operator may not operate an aeroplane under instrument flight rules or night visual flight rules flight by a single pilot unless –

- (a) the aeroplane is –
 - (i) of maximum take-off weight of less than or equal to 5 700 kilogrammes;
 - (ii) not certificated to carry more than nine passengers;
 - (iii) certified, and a flight manual does not require a flight crew of more than one pilot; and
 - (iv) a propeller or jet engine driven;
- (b) an operator is authorised to do so in his or her operation specifications; and
- (c) an operator meets the requirements in Document NAM-CATS-OPS 135.

Reporting of hazardous flight conditions

135.08.10 The pilot-in-command of any aeroplane that encounters flight conditions considered to be hazardous to his or her, or another aeroplane, must report the conditions to any appropriate air traffic services unit as soon as possible, giving the details as may be pertinent to the safety of other aeroplanes.

Refuelling and defueling with passengers on board

135.08.11 A person may not refuel or defuel any aeroplane when passengers are embarking, disembarking or on board unless the fuelling is carried out in accordance with the procedures specified in Document NAM-CATS-OPS 135 and the procedures are included in the operator's operations manual.

Reporting acts of unlawful interference

135.08.12 Following an act of unlawful interference, the pilot-in-command must where, in his opinion the safety of persons on board the aeroplane would not be jeopardized, report the events to the nearest air traffic services authority by the most discrete method possible, by the means devised for the communications.

In-flight simulation of emergencies

135.08.13 A person may not simulate any emergency or abnormal condition during flight that would effectively alter the flight characteristics of the aeroplane or otherwise induce a potentially unsafe safety condition when passengers are on board the aeroplane.

Security of flight crew compartment

135.08.14 (1) An operator must ensure that all aeroplanes which are equipped with a flight crew compartment door, this door must be capable of being locked.

(2) If cabin crew are required or carried, means or procedures must be established by which cabin crew can discreetly notify the flight crew in the event of suspicious activity or security breaches in the cabin.

(3) In all aeroplanes which are equipped with a flight crew compartment door in accordance with subregulation (1)(b) –

- (i) this door must be closed and locked from the time all external doors are closed following embarkation until any the door is opened for disembarkation, except when necessary to permit access and egress by authorised persons; and
- (ii) means must be provided for monitoring from the flight deck the entire door area outside the flight crew compartment to identify persons requesting entry and to detect suspicious behaviour or potential threat.

DIVISION TWO: DISPATCH AND FLIGHT RELEASE RULES

Operational control and supervision of flight operations

135.08.15 (1) An operator must establish and maintain an operational control system that meets the requirements in Document NAM-CATS-OPS 135 and which provides operational control services appropriate to the flights being operated.

(2) An operator who wishes to use flight operations officers in their operational control system or who wishes to operate under a Type A operational control system as provided in regulation 135.07.13, must meet the appropriate provisions of Part 135 as follows –

- (a) for the use of flight operations officers, regulations 135.02.14 and 135.02.15 and Subpart 3, Divisions Four and Five; and
- (b) for a Type A operational control system, Subpart 7, Division Two.

Services for operational control system

135.08.16 An operator may use the operational control system of an agent whether domestic or foreign but the service agreement must be approved by the Executive Director and the methods, procedures and policies for effecting operational control are described in the operator's operations manual.

Operational flight plan and flight release

135.08.17 (1) An operator must prepare an operational flight plan for its flights as provided in Document NAM-CATS-OPS 135.

(2) The signatures or alternative means of signifying acceptance of the operational flight plan by the pilot-in-command and flight operations officer, if applicable, as required in Document NAM-CATS-OPS 135, must constitute a flight release and certifies that –

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

Familiarity with technical information

135.08.18 An operator may not permit a flight to be released unless the pilot-in-command is thoroughly familiar with any technical information relevant to the proposed flight including aeroplane performance, maintenance status, bulletins or operational directives issued by the person responsible for flight operations and that nothing in the information indicates there is a threat to the safety of the flight.

Retention of flight operations documents and reports

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

(2) All flight documentation required by this Subpart to be prepared with respect to a flight and which was carried on-board that flight must –

- (a) be returned to the company's main base specified in the air operator certificate; and
- (b) include weather maps and printed information, notice to airmen, cargo and fuel loading sheets and manifests and all paperwork used to record the progress or diversion and irregular or emergency situations of the flight.

Maintenance status

135.08.20 A person may not dispatch or release an aeroplane unless it is airworthy and all known defects have been rectified and appropriately certified by an aeroplane maintenance engineer except where the dispatch of the aeroplane is in accordance with an approved minimum equipment list issued in terms of regulation 135.07.22, a configuration deviation list approved by the State of Manufacture or as otherwise permitted in the aeroplane flight manual.

Requirements for minimum equipment lists

135.08.21 (1) A person may not conduct a take-off in an aeroplane with instruments or equipment that are not serviceable or that have been removed unless the aeroplane is operated in accordance with a configuration deviation list, the provisions specified in the aeroplane flight manual or the conditions or limitations specified in a minimum equipment list, which has been approved by the Executive Director and, in the opinion of the pilot-in-command, aviation safety will not be compromised.

(2) An operator must establish a minimum equipment list for each type of aeroplane for which a master minimum equipment list has been approved by a State of Design of the an aeroplane but the State must be a contracting state to the Chicago Convention.

(3) An operator may not operate an aeroplane in accordance with a minimum equipment list unless the minimum equipment list is carried on board the aeroplane.

Aerodrome operating minima

135.08.22 (1) An operator must establish aerodrome operating minima in accordance with the provisions of subregulations (2), (3) and (4) in a manner approved by the Executive Director.

(2) An operator must establish aerodrome operating minima for each aerodrome planned to be used, which must not be lower than the values specified in Document NAM-CATS-OPS 91, except as provided in regulation 135.07.28.

(3) An operator must ensure that all instrument approaches and departures are conducted in accordance with the procedures approved for the operator in its operations specifications.

(4) Where an operator is operating at an aerodrome other than a Namibian aerodrome, the aerodrome operating minima established by the operator may be lower than the minima established by the appropriate authority of the State in which the aerodrome is located, but –

- (a) the State in which the aerodrome is located must approve the lower operating minima; and
- (b) the operator must be authorised in its operations specifications to operate to the lower minima.

Minimum flight altitudes

135.08.23 (1) An operator must establish minimum flight altitudes and the methods to determine the 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 of this Part and the minimum flight altitudes referred to in regulation 91.06.32.

(2) An operator must take into account the following factors when establishing minimum flight altitudes –

- (a) the accuracy with which the position of the aeroplane can 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 must give due consideration to –

- (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.

Ditching

135.08.24 An operator may not operate an aeroplane with an approved passenger seating configuration of more than 30 seats over routes on which the aeroplane may be over water and at more than a distance corresponding to 120 minutes at cruising speed or 400 nautical miles, whichever is the lesser, away from land suitable for making an emergency landing, unless the aeroplane has been certified as having adequate characteristics for ditching or has been approved as adequate for ditching.

Fuel policy

135.08.25 (1) An operator must establish a fuel policy that meets the standards specified in Document NAM-CATS-OPS 135 for the purpose of flight planning and in-flight re-planning to ensure that every flight carries sufficient fuel for the planned operation and reserve fuel to cover deviations from the planned operation.

- (2) An operator must ensure that the planning of a flight is based upon –

- (a) procedures, tables or graphs which are contained in or derived from current aeroplane-specific data or the operations manual referred to in regulation 135.04.2;
 - (b) the operating conditions under which the flight is to be conducted, including –
 - (i) realistic aeroplane fuel consumption data;
 - (ii) anticipated masses;
 - (iii) expected meteorological conditions;
 - (iv) the effects of loss of facilities or services as identified in NOTAMs; and
 - (v) air traffic services procedures, restrictions and anticipated delays.
- (3) An operator must establish policies and procedures with respect to fuel management and publish the policies and procedures in the operations manual referred to in regulation 135.04.2.
- (4) The policies and procedures required by subregulation (3) must, as a minimum, include the requirement that –
- (a) in-flight fuel checks are to be performed at least hourly by or on behalf of the pilot-in-command to ensure that the amount of usable fuel remaining in flight is not less than the fuel required to proceed to a suitable aerodrome where a safe landing can be made with the planned final reserve fuel remaining; and
 - (b) the pilot-in-command must declare a situation of urgency when the calculated usable fuel predicted to be available upon landing at the nearest suitable aerodrome where a safe landing can be made is less than the planned final reserve fuel.

Fuel and oil supply and record keeping

135.08.26 An operator must establish policies and procedures, approved by the Executive Director, to ensure that in-flight fuel checks and fuel management are performed.

Operation of aircraft in icing conditions

135.08.27 (1) A person may not conduct a take-off or continue a flight in an aeroplane when icing conditions are reported to exist or are forecast to be encountered along the route to be flown unless the aeroplane is equipped and the type certificate or the AFM authorises flight in the conditions.

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

(3) A person may not operate an aeroplane in icing conditions at night unless the aeroplane is equipped with a means to illuminate a representative surface or otherwise detect the formation of ice.

In-flight operational changes to flight plan

135.08.28 (1) An operator must, when practicable, coordinate with the appropriate air traffic services unit any in-flight operational changes to a current air traffic services flight plan before the operator communicates the changes to the aeroplane.

(2) When the coordination required by subregulation (1) is not practicable, the pilot must be responsible for obtaining an appropriate approval and clearance from an air traffic services unit, if applicable, before making a change in the flight plan.

Surface contamination programme

135.08.29 (1) A person may not conduct or attempt to conduct a take-off in an aeroplane that has frost, ice or snow adhering to any of its critical surfaces.

(2) Despite subregulation (1), a person may conduct a take-off in an aeroplane that has frost adhering to the underside of its wings that is caused by cold-soaked fuel, if the take-off is conducted in accordance with the aeroplane manufacturer's instructions for take-off under the conditions.

(3) Where conditions are such that frost, ice or snow may reasonably be expected to adhere to the aircraft, a person may not conduct or attempt to conduct a take-off in an aeroplane unless the operator has established an aeroplane inspection programme in accordance with a critical surface contamination programme approved by the Executive Director and the dispatch and take-off of the aircraft are in accordance with that programme.

(4) The inspection referred to in subregulation (3) must be performed by –

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

(5) Where, before commencing take-off, a crew member of an aeroplane observes that there is frost, ice or snow adhering to the wings of the aeroplane, the crew member must immediately report that observation to the pilot-in-command and the pilot-in-command, or a flight crew member designated by the pilot-in-command, must inspect the wings of the aeroplane before take-off.

(6) Before an aeroplane is de-iced or anti-iced, the pilot-in-command of the aeroplane must ensure that the crew members and passengers are informed of the decision to do so.

(7) An operator is not required to have the programme specified in subregulation (3) if it includes a statement in its operations manual that the operator will not dispatch its aeroplane into any region or country where it could be reasonably expected that surface contamination could at any time form on the aeroplane, while parked or operating on the ground.

Mass and balance control

135.08.30 (1) A person may not operate an aeroplane unless, during every phase of the flight, the load restrictions, mass and centre of gravity of the aeroplane conform to the limitations specified in the aeroplane flight manual.

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

(3) An operator must specify in its operations manual its mass and balance programme and instructions to employees regarding the preparation and accuracy of mass and balance forms and the load and trim sheet in accordance with regulation 135.04.9.

Low visibility operations

135.08.31 An operator may not assign, and a person may not conduct, a low visibility take-off or Category II or III approach unless –

- (a) the operator meets the conditions specified in Document NAM-CATS-OPS 135;
- (b) the operator is authorised to do so in its operations specifications; and
- (c) the low visibility take-off are conducted in accordance with the procedures approved for the operator in its operations manual.

Operations with head-up displays or vision systems

135.08.32 (1) An operator may only prescribe the use of automatic landing systems, head-up displays or equivalent display, enhanced vision system, synthetic vision system, combined vision system or any combination of those systems into a hybrid system for the safe operation of an aeroplane, if –

- (a) the operator is authorised to do so in its operation specifications;
- (b) the operator complies with the applicable automatic landing systems, head-up displays or equivalent display, enhanced vision system, synthetic vision system, or combined vision system, as provided for in Document NAM-CATS-OPS 135;
- (c) the equipment meets an appropriate airworthiness certification requirements;
- (d) the operator has carried out a safety risk assessment of the operations supported by automatic landing systems, head-up displays or equivalent display, enhanced vision system, synthetic vision system, or combined vision system;
- (e) the Executive Director has authorised an operational credit for the operation with an aeroplane equipped with automatic landing systems, head-up displays or equivalent displays, enhanced vision system, synthetic vision system, or combined vision system;
- (f) the operator has applied for a specific approval where an operational credit relates to low visibility operations, but the specific approval must not affect the classification of instrument approach procedure.

(2) An operator must include suitable operational procedures for use of, and training requirements for the equipment in the operations manual referred to in regulation 135.04.2, which must cover at least the following –

- (a) limitations;
- (b) operational credits as specified in Document NAM-CATS-OPS 135;
- (c) flight planning;
- (d) ground and airborne operations;

- (e) crew resource management;
- (f) standard operating procedures; and
- (g) air traffic services flight plans and communication.

Operations with electronic flight bags

135.08.33 (1) An operator may not use an electronic flight bag unless the operator –

- (a) is authorised to do so in its operations specifications; and
 - (b) complies with the electronic flight bag requirements in Document NAM-CATS-OPS 135.
- (2) Where electronic flight bags are used on board aircraft, an operator must –
- (a) assess the safety risk associated with each electronic flight bag function;
 - (b) establish and document the procedures for the use of, and training requirements for, an electronic device and each electronic flight bag function in an operations manual referred to in regulation 135.04.2;
 - (c) ensure that, in the event of an electronic flight bag failure, sufficient information is readily available to a flight crew for a flight to be conducted safely;
 - (d) ensure requirements are established for redundancy of information, if appropriate, contained and displayed by electronic flight bag function;
 - (e) ensure that an electronic flight bag equipment and its associated installation hardware, including interaction with aircraft systems if applicable, meet appropriate airworthiness certification requirements; and
 - (f) must establish and document procedures for the management of electronic flight bag function including any database it may use.

(3) Where portable electronic flight bags are used on board an aircraft, an operator of the aircraft must ensure that they do not affect the performance of aircraft systems, equipment or the ability to operate the aircraft.

DIVISION THREE: CABIN SAFETY

Carry-on baggage

135.08.34 (1) An operator must establish adequate procedures to ensure that only the baggage is carried onto the aeroplane and taken into the passenger cabin as can be adequately and securely stowed.

(2) For aeroplanes operated under this Part having a maximum certificated take-off mass of greater than 5 700 kilogrammes, the minimum requirements for the procedures referred to in subregulation (1) must be as provided for in Document NAM-CATS-OPS 135.

Hold baggage screening

135.08.35 An operator engaged in scheduled domestic or international operations may not carry any originating hold baggage unless the baggage has been screened prior to being loaded into the aircraft in a manner acceptable to the Executive Director.

Securing of passenger cabin and galley

135.08.36 (1) Before take-off and landing and whenever considered necessary in the interests of aviation safety, the pilot-in-command must ensure that –

- (a) all equipment, baggage and loose articles in the cabin of the aeroplane, including passenger service items and crew members' and passengers' personal effects, are properly secured and stowed so as to avoid the possibility of injury to persons or damage to the aeroplane through the movement of the articles caused by in-flight turbulence or by unusual accelerations or manoeuvres; and
- (b) all aisles, passage ways, exits and escape paths are kept clear of obstructions.

(2) All solid articles must be placed in approved stowage areas in the aeroplane, at all times whenever the seat belt lights are illuminated or when so directed by the pilot-in-command of the aeroplane.

(3) For the purposes of subregulation (2), "approved stowage area" means –

- (a) the area under a passenger seat; or
- (b) a locker, overhead or other, utilised in accordance with the placarded mass limitation of the locker.

(4) Where service galleys are made available to the passengers on a self-service basis, the cabin briefing must include a demonstration and safety instructions in the use and stowage procedures of the galley area containing the services.

(5) The pilot-in-command of an aeroplane may not commence any take-off or landing, unless he or she has completed the cabin checks necessary to ensure the safe condition of the cabin.

Passenger services

135.08.37 (1) Except when in use, all items provided for passenger services, including food containers, thermos flasks and servicing trays, must be carried in their respective stowages and secured against movement likely to cause injury to persons or damage to the aeroplane.

(2) All items referred to in subregulation (1) must be stowed during take-off and landing or during emergency situations, as directed by the pilot-in-command of the aeroplane.

(3) Any item which cannot be accommodated in the stowage, referred to in subregulation (1), must not be permitted in the cabin of the aeroplane.

(4) Securing of the cabin must be completed by the cabin crew members before the approach for landing of the aeroplane is commenced.

Briefing of passengers

135.08.38 (1) The pilot-in-command must ensure that passengers are given a safety briefing in accordance with Document NAM-CATS-OPS 135.

(2) Where the safety briefing referred to in subregulation (1) is insufficient for a passenger because of that passenger's physical, sensory or comprehension limitations or because that passenger is responsible for another person on board the aeroplane, the pilot-in-command must ensure that the passenger is given an individual safety briefing that is appropriate to the passenger's needs.

(3) The pilot-in-command must ensure that, in the event of an emergency and where time and circumstances permit, all passengers are given an emergency briefing in accordance with the Document NAM-CATS-OPS 135.

(4) The pilot-in-command must ensure that each passenger who is seated next to an emergency exit is made aware of how to operate that exit.

Safety features card

135.08.39 An operator must provide each passenger, at the passenger's seat, with a safety features card containing, in pilot-in-command tographic form, and any wording must be in English or as required by the Executive Director and must contain the information as provided for by Document NAM-CATS-OPS 135.

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

135.08.40 (1) A person may not operate an aircraft unless the aircraft is equipped with –

- (a) a seat or berth for each person who is aged two years or older;
- (b) a safety belt with or without a diagonal shoulder strap, or a safety harness, for use in each passenger seat for each passenger who is two years or older;
- (c) a safety belt for use in each passenger berth;
- (d) a child restraint device for the carriage of each child and infant as provided for in Document NAM-CATS-OPS 135;
- (e) a safety harness for each flight crew member seat, incorporating a device which must automatically restrain an occupant's torso in the event of rapid deceleration; and
- (f) a safety harness for each cabin crew member seat but a safety belt with one diagonal shoulder strap must be permitted if the fitting of a safety harness is not practical.

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

(3) If a pilot-in-command cannot see all the passenger seats in an aircraft from his or her own seat, a means of indicating to all passengers and cabin crew members that seat belts must be fastened, must be installed.

(4) A safety harness and safety belt fitted in an aircraft must have a single point release.

(5) A passenger must not be responsible for the safety of more than one infant on board an aircraft.

Carriage of persons with disability

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

(2) An operator must ensure that –

- (a) the pilot-in-command of the aeroplane is notified when a passenger with a disability is to be carried on board;
- (b) a passenger with a disability is not seated in the same row or a row directly forward or aft of an emergency exit;
- (c) individual briefings on emergency procedures are given to a passenger with a disability and his able-bodied assistant, appropriate to the needs of the passenger; and
- (d) the person giving the briefing must 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 aeroplane –

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

(4) A person with a mental disability may not be carried in the aeroplane unless –

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

(5) An operator must undertake the carriage of a person with a mental disability who, according to his medical history, may become violent, only after special permission has been obtained from the Executive Director by the 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) must 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 must be accompanied by an able-bodied assistant.

Limitations on carriage of children and passengers with disability

135.08.42 (1) Unless otherwise authorised by the Executive Director, the maximum number of passengers with a disability, unaccompanied minors, or a combination of the passengers and minors, which may be carried by an air operator, is limited to one per unit of 20 passenger capacity or part of the capacity to a maximum of 10 the passengers and minors.

(2) At least one able-bodied assistant must be carried for every group of five passengers with a disability or unaccompanied minors, or a part or combination of that group, and the assistant must be assigned with the responsibility for the safety of the passengers or minors unless the passengers with a disability can assist themselves.

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

(4) An operator may establish procedures instead of the provisions of subregulations (2) and (3) for the carriage of children and passengers with a disability but –

- (a) the procedures must not jeopardise aviation safety; and
- (b) prior written approval must be obtained from the Executive Director.

Carriage of persons without documentation, deportees or persons in custody

135.08.43 (1) An air operator must establish procedures for the carriage of persons without documentation, deportees or persons in custody to ensure the safety of the aeroplane and its occupants.

(2) The pilot-in-command of the aeroplane must be notified by the operator prior to departure, of the intended carriage and the reason for carriage, of any of the persons referred to in subregulation (1).

Portable electronic devices

135.08.44 An operator of an aircraft must ensure that a passenger and crew do not operate any portable electronic device on an aircraft, except with a permission of a pilot-in-command of aircraft.

**SUBPART 9
AEROPLANE PERFORMANCE OPERATING LIMITATIONS****General requirements**

135.09.1 (1) Any determination made for the purposes of this Subpart must be based on approved performance data set out in the aeroplane flight manual for the aeroplane concerned.

(2) A person may operate an aeroplane without complying with the requirements of this Division if the person –

- (a) is authorised to do so in the operator's operations specifications; and
- (b) complies with the requirements as provided for in NAM-CATS-OPS 135.

(3) Where an operator uses charts or graphs published in the approved aeroplane flight manual, allowance must be made to ensure any extract errors will be on the side of safety.

(4) An operator must adopt obstacle data sufficient to make accurate and safe performance calculations.

(5) Except as authorised by the Executive Director or as provided in regulation 135.07.5, single-engine aeroplanes must only be operated in conditions of weather and light, and over the routes and diversions there from, that permit a forced landing to be executed in the event of engine failure.

(6) An aeroplane must be operated in compliance with the terms of its certificate of airworthiness and within the approved operating limitations contained in its flight manual.

(7) A flight may not be commenced unless the performance information provided in the flight manual, supplemented as necessary with other data acceptable to the Executive Director, indicates that the standards in this Subpart can be complied with for the flight to be undertaken.

(8) In complying with any of the provisions in this Subpart, all factors that significantly affect the performance of an aeroplane, as applicable to a phase of flight, must be taken into account and which must include as a minimum –

- (a) the mass of an aeroplane;
- (b) the operating procedures employed by an operator;
- (c) the pressure-altitude appropriate to the elevation of an aerodrome;
- (d) the ambient temperature;
- (e) the wind;
- (f) the runway slope; and
- (g) the surface conditions of the runway at the expected time of use.

(9) The factors specified in subregulation (6) must be taken into account either directly as operational parameters or indirectly by means of allowances or margins, which may be provided in the scheduling of performance data or in the comprehensive and detailed code of performance in accordance with which the aeroplane is being operated.

Take-off mass limitations

135.09.2 (1) A person may not conduct a take-off in an aeroplane if the aeroplane's mass –

- (a) exceeds an maximum take-off mass specified in an aeroplane flight manual for the pressure altitude and the ambient temperature at an aerodrome where a take-off is to be made; or
 - (b) exceeds a landing mass specified in the an aeroplane's flight manual for pressure altitude and ambient temperature at a destination aerodrome or alternate aerodrome after allowing for planned fuel consumption during a flight.
- (2) In the determination of maximum take-off mass referred to in subregulation (1) –

- (a) the required accelerate-stop distance must not exceed the accelerate-stop distance available;
 - (b) a required take-off run must not exceed a take-off run available; and
 - (c) a required take-off distance must not exceed a take-off distance available.
- (3) For the purposes of subregulation (2), the factors to be taken into account are –
- (a) maximum take-off weight of an aircraft;
 - (b) specific operating procedures;
 - (c) pressure altitude at an aerodrome;
 - (d) ambient temperature;
 - (e) runway slope in the direction of take-off;
 - (f) not more than 50 percent of a reported headwind component or not less than 150% of a reported tailwind component;
 - (g) loss of effective take off run available during runway alignment except where rolling take-offs are approved;
 - (h) where a runway condition is other than bare and dry, an appropriate penalty based upon a runway condition or contaminants the as slope, ice, snow, slush, standing water or water surfaces for seaplanes, must be factored into the performance calculation; and
 - (i) any other factor that may significantly affect aeroplane performance.
- (4) A person may not conduct a take-off in an aeroplane unless the aeroplane is able, in the event of a critical engine failure or for any other reason, at any point in a take-off, either to discontinue the take-off and stop within an accelerate-stop distance available or to continue a take-off and clear all obstacles along a flight path by an adequate vertical or horizontal distance.
- (5) For the purposes of determining an accelerated stop distance, a pilot-in-command must take into account a loss, if any, of runway length due to alignment of an aeroplane prior to take-off.
- (6) For the purpose of determining a resulting take-off obstacle accountability area, a pilot-in-command must take into account the crosswind component and navigation accuracy.

Net take-off flight path

135.09.3 (1) A person may not conduct a take-off in an aeroplane if the mass of the aeroplane is greater than the mass specified in the aeroplane flight manual as allowing a net take-off flight path that clears all obstacles by at least 35 feet vertically or at least 62 meters horizontally within the aerodrome boundaries and by at least 95 meters horizontally outside those boundaries.

(2) In the determination of the maximum mass, minimum distances and flight path referred to in subregulation (1) –

- (a) corrections must be made for –

- (i) the runway to be used;
 - (ii) the runway slope in the direction of take-off;
 - (iii) the pressure-altitude at the aerodrome;
 - (iv) the ambient temperature; and
 - (v) the wind component at the time of take-off, where not more than 50 percent of the reported headwind component or not less than 150 percent of the reported tailwind component may be considered; and
- (b) calculations must be based on the pilot –
- (i) not banking the aeroplane before reaching an altitude of 50 feet;
 - (ii) subject to subregulation (3), using 15 degrees or less of bank at or below 400 feet; and
 - (iii) using not more than 25 degrees of bank thereafter, aeroplane speed and configuration permitting.

(3) A bank angle greater than the 15 degrees referred to in subregulation (2)(b)(ii) may be used if it is authorised by the Executive Director.

En route limitations with single-engine aeroplanes

135.09.4 An operator may not operate a single-engine aeroplane in instrument meteorological conditions over any route unless it is capable of meeting the requirements of regulation 135.08.1(1) (a) in the event of an engine failure.

En route limitations with one engine inoperative

135.09.5 (1) An operator may not operate a twin-engine aeroplane in instrument meteorological conditions over any route if the weight of the aeroplane is greater than the weight that will allow the aeroplane to meet the requirements of regulation 135.08.1(1)(b) in the event of an engine failure.

(2) An operator may not operate a twin-engine aeroplane in visual meteorological conditions over any route if the weight of the aeroplane is greater than the weight that will allow the aeroplane when operating in visual flight rules flight, to maintain at least 500 feet above the surface in the event of an engine failure.

En route limitations with more than one engine inoperative

135.09.6 An operator may not operate an aeroplane equipped with more than two engines in instrument meteorological conditions over any route if the weight of the aeroplane is greater than the weight that will allow the aeroplane to meet the requirements of regulation 135.07.1 (3)(c) in the event of the failure of two engines.

Dispatch limitations: landing at destination and alternate aerodromes

135.09.7 (1) Subject to subregulation (3), a person may not dispatch or conduct a take-off in an aeroplane unless –

- (a) the mass of the aeroplane on landing at the destination aerodrome will allow a full-stop landing –
 - (i) in the case of any turbojet- or turbofan-powered aeroplane, within 60 percent of the landing distance available, or
 - (ii) in the case of a large propeller-driven aeroplane, within 70 percent of the landing distance available; and
 - (b) the mass of the aeroplane on landing at any alternate aerodrome will allow a full-stop landing –
 - (i) in the case of a turbojet- or turbofan-powered aeroplane, within 60 percent of the landing distance available, and
 - (ii) in the case of a propeller-driven aeroplane, within 70 percent of the landing distance available.
- (2) In determining whether an aeroplane can be dispatched or a take-off can be conducted in accordance with subregulation (1), the following must be taken into account –
- (a) the pressure altitude at the destination aerodrome and at the alternate aerodrome, if the pressure altitude can be determined;
 - (b) not more than 50 percent of the reported headwind component or not less than 150 percent of the reported tailwind component may be used in computing distances for take-off or landing; and
 - (c) that the aeroplane must be landed on a suitable runway, considering the wind speed and direction, the ground handling characteristics of the aeroplane and other conditions the as landing aids and terrain.
- (3) Where conditions at the destination aerodrome at the time of take-off do not permit compliance with subregulation (2)(c), an aeroplane may be dispatched and a take-off conducted if the alternate aerodrome designated in the operational flight plan permits, at the time of take-off, compliance with subregulations (1)(b) and (2).
- (4) Where the aerodrome of intended landing has in place noise criteria that may require a landing mass reduction, the take-off mass must be adjusted to comply with the limitations.

Dispatch limitations: wet runway - turbojet- or turbofan-powered aeroplanes

135.09.8 (1) Subject to subregulation (2), when weather reports or forecasts indicate that the runway may be wet at the estimated time of arrival, an operator may not dispatch, and a pilot-in-command may not conduct a take-off in a turbojet- or turbofan-powered aeroplane, unless the landing distance available at the destination aerodrome is at least 115 percent of the landing distance required in terms of regulation 135.09.7 (1)(a).

(2) The landing distance available on a wet runway may be shorter than that required by subregulation (1) but not shorter than that required by regulation 135.09.7, if the aeroplane flight manual includes specific information about landing distances on wet runways.

Landing on dry runways

135.09.9 (1) An operator must ensure that the landing mass of the aeroplane for the estimated time of landing, allows a full stop landing from 50 feet above the threshold within 70

percent of the landing distance available at the destination aerodrome and at any alternate aerodrome but the Executive Director may permit the use of a screen height of less than 50 feet, but not less than 35 feet, for steep-approach and short-landing procedures.

(2) When complying with the provisions of subregulation (1), the operator must take account of –

- (a) the pressure altitude at the aerodrome; and
- (b) not more than 50 percent of the reported head-wind component or not less than 150 percent of the reported tail-wind component.

Landing on wet and contaminated runways

135.09.10 (1) An operator must ensure that, when the appropriate weather reports or forecasts, or a combination of the reports and forecasts, indicate that the runway at the estimated time of arrival may be wet, the landing distance available is at least 115 percent of the required landing distance determined in accordance with the provisions of regulation 135.09.9.

(2) An operator must ensure that, when the appropriate weather reports or forecasts, or a combination of the report and forecasts, indicate that the runway at the estimated time of arrival may be contaminated, the landing distance available must be at least the landing distance determined in accordance with the provisions of subregulation (1) or at least 115 percent of the landing distance determined in accordance with approved contaminated landing distance data or an equivalent contaminated landing distance data, whichever is the greater.

(3) A landing distance on a wet runway shorter than the landing distance required by the provisions of subregulation (1), but not less than the landing distance required by the provisions of regulation 135.09.9(1), may be used if the aeroplane flight manual referred to in regulation 135.04.4 includes specific additional information on landing distances on wet runways.

SUBPART 10 MAINTENANCE CONTROL

General

135.10.1 (1) An operator may not operate any aeroplane under this Part unless the aeroplane is maintained in accordance with Part 43.

(2) An operator must ensure that the aeroplane is maintained in accordance with an approved aeroplane maintenance programme.

(3) An operator may contract its maintenance out as provided in regulation 135.10.3.

(4) The maintenance programme referred to in subregulation (2) must contain the information required by regulation 135.10.2 (1) and be provided to the maintenance personnel concerned and the other personnel as may be required.

Aeroplane maintenance programme

135.10.2 (1) The maintenance programme referred to in regulation 135.09.1 (2) must be developed for each aeroplane and must contain the following information –

- (a) maintenance tasks and the intervals at which these are to be performed, taking into account the anticipated utilization of the aeroplane;

- (b) when applicable, a continuing structural integrity programme;
- (c) procedures for changing or deviating from paragraphs (a) and (b); and
- (d) when applicable, condition monitoring and reliability programme descriptions for aircraft systems, components and powerplants.

(2) Maintenance tasks and intervals that have been specified as mandatory in approval of the type design must be identified as the.

(3) The maintenance programme must be based on information made available by the State of Design or by the organisation responsible for the type design, and any applicable operational, maintenance and regulatory requirements issued by the Executive Director.

(4) Any amendment to the approved programme must be formulated by the operator, to reflect changes in the type certificate holder's recommendations, modifications, reliability programme, service experience, or as required by the Executive Director.

(5) The design and application of the maintenance programme must observe human factors principles.

(6) Upon approval of the Executive Director, copies of all amendments to the maintenance programme must be furnished promptly to all organisations or persons to whom the maintenance programme has been issued.

Maintenance contracted to approved aircraft maintenance organisation

135.10.3 (1) An operator contracting its maintenance out as provided in regulation 135.10.1 (3) must ensure the contract is with a holder of an aircraft maintenance organisation approval with the appropriate rating issued in terms of Part 145.

(2) An operator must implement a system of quality assurance to ensure that all maintenance is carried out by the contracted organisation as provided in the contract.

Operator's maintenance responsibilities

135.10.4 (1) An operator must establish procedures acceptable to the Executive Director that ensure –

- (a) each aeroplane they operate is maintained in an airworthy condition;
- (b) the operational and emergency equipment necessary for an intended flight are serviceable; and
- (c) the Certificate of Airworthiness of each aeroplane they operate, including any appropriate special conditions, remains valid.

(2) An operator may not operate an aeroplane unless it is maintained and released to service by an organisation designated in accordance with Part 145 in the manner referred to in regulation 135.10.3.

(3) An operator must be resourced sufficiently to ensure that all maintenance is carried out in accordance with the maintenance control manual referred to in regulation 135.10.5.

(4) An operator must ensure that the maintenance of its aeroplanes is performed in accordance with the maintenance programme.

(5) When the Executive Director accepts an equivalent maintenance programme, the person signing the maintenance release, has to sign the release in accordance with Part 66.

Operator's maintenance control manual

135.10.5 (1) An operator must provide a maintenance control manual that meets the requirements in Document NAM-CATS-OPS 43 for the use and guidance of the maintenance and operational personnel concerned.

(2) The maintenance control manual referred to in subregulation (1) must incorporate relevant principles of human factors.

(3) If an operator develops a separate maintenance control manual as part of the operations manual system, two copies of the proposed maintenance control manual must be provided to the Executive Director.

(4) An operator must amend its maintenance control manual as necessary in accordance with the amendment procedures contained in the maintenance control manual, in order to keep the information contained therein up-to-date and accurately reflect company policy with respect to the maintenance of its aeroplanes and the operator must forward two copies of all amendments to the maintenance control manual to the Executive Director for approval.

(5) Upon receipt of any approved amendments, each holder of a maintenance control manual must be furnished a copy of the amendment with clear instructions to insert the amended pages in a timely manner into the maintenance control manual.

(6) The Executive Director may require an operator to produce an amendment where he or she is of the opinion that the maintenance control manual requires updating.

Maintenance records

135.10.6 (1) The following records must be kept for each aeroplane for the periods specified in subregulation (3) –

- (a) the total time in service (hours, calendar time and cycles, as appropriate) of the aeroplane and all life limited components;
- (b) the current status of compliance with all mandatory continuing airworthiness information;
- (c) appropriate details of modifications and repairs;
- (d) the time in service (hours, calendar time and cycles, as appropriate) since the last overhaul of the aeroplane or its components subject to a mandatory overhaul life ;
- (e) the current status of the aeroplane's compliance with the maintenance programme; and
- (f) the detailed maintenance records to show that all requirements for the signing of a maintenance release have been met.

(2) An operator must describe in its maintenance control manual who is responsible for the retention of the records required by subregulation (1) and where they will be kept.

(3) The records referred to –

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

(b) in subregulation (1)(f) must be kept for a minimum period of five years after a signing of a maintenance release; and

(c) in paragraph (a) and (b) must be kept, transferred and maintained in a form and format that ensures readability, security and integrity of records at all times.

(4) At the discretion of the Executive Director, in the event of a temporary change of operator, the records must be made available to the new operator and in the event of any permanent change of operator, the records must be transferred to the new operator.

Continuing airworthiness information

135.10.7 (1) An operator operating aeroplane in excess of 5 700 kilogrammes maintenance control manual must, describe in its maintenance control manual –

(a) who is responsible to monitor and assess maintenance and operational experience with respect to continuing airworthiness and obtain the other information that the Executive Director prescribes; and

(b) who must report the information to the Executive Director using a reporting system developed for that purpose.

(2) The Executive Director must transmit all mandatory continuing airworthiness information reported to him or her in accordance with subregulation (1) to the State of Design of any aeroplane that has been issued a Namibia Certificate of Airworthiness and operated in terms of this Part.

(3) An operator must describe in its maintenance control manual who is responsible to obtain and assess continuing airworthiness information and recommendations issued by an aeroplane manufacturer, the organisation responsible for the aeroplane type design or by the State of Design, or any additional requirements issued by the Executive Director for each type of aeroplane operated under this Part and must implement resulting actions considered necessary in accordance with a procedure acceptable to the Executive Director.

(4) An operator of an aeroplane must monitor and assess maintenance and operational experience with respect to continuing airworthiness and provide reports to the Executive Director through the system specified by the State of Registry.

(5) An operator of an aeroplane must obtain and assess continuing airworthiness information and recommendations available from the organization responsible for the type design and must implement resulting actions considered necessary by the operator in accordance with a procedure acceptable to the Executive Director.

Modifications and repairs

135.10.8 (1) All modifications and repairs must comply with airworthiness requirements in Parts 43 and 44 acceptable to the Executive Director.

(2) Records of the modifications and repairs substantiating data, approved design data, supporting compliance with the airworthiness requirements must be retained in accordance with regulation 43.03.3.

SUBPART 11 SAFETY AND QUALITY MANAGEMENT SYSTEMS

Requirements for quality management system

135.11.1 (1) An operator must establish a quality management system that meets the requirements in Document NAM-CATS-OPS 135.

(2) The quality management system must –

- (a) include a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with all applicable requirements, standards and procedures; and
- (b) be described in relevant documentation as provided for in Document NAM-CATS-OPS 135.

(3) An operator must designate a person responsible for the quality management system who meets the qualifications and experience requirements and who will be responsible for the functions as provided for in Document NAM-CATS-OPS 135.

(4) The operator must prepare a quality management manual that meets the requirements in Document NAM-CATS-OPS 135.

(5) Despite subregulation (3), the operator may appoint two quality managers, one for flight operations and one for maintenance but the operator must designate one single quality management unit to ensure that the quality system is applied uniformly throughout the entire operation.

SUBPART 12 SECURITY

Aviation security for domestic and international air transport operations

135.12.1 Despite the security requirements in this Part, an operator, owner or pilot-in-command, as the case may be, must ensure that the security requirements specified in Parts 108 to 114 in respect of all domestic and international air transport operations are complied with.

SUBPART 13 DANGEROUS GOODS

Transportation of dangerous goods

135.13.1 When transporting dangerous goods the operator, owner or pilot-in-command must comply with the requirements of Part 92.”.

Amendment of Part 170 of Regulations

8. Part 170 of the Regulations is amended –

- (a) by the addition after subregulation (2) of regulation 170.02.01 of the following subregulations:

“(3) An ANS provider may deviate from the requirements, procedures or standards provided for under this Part or the relevant ANS Part if an emergency, or any other circumstance, arises that makes the deviation necessary in the interests of aviation safety.

(4) The ANS provider must, as soon as possible, inform the Executive Director of any deviation referred to in subregulation (3) and how long the deviation is likely to last.”;

(b) by –

(i) the substitution for subregulation (1) of regulation 170.02.5 of the following subregulation:

“(1) An ANS provider certificate is valid for a period of five years, from the date of issuance or renewal of such ANS provider certificate.”; and

(ii) the insertion after subregulation (1) of regulation 170.02.5 of the following subregulation:

“(1A) Despite subregulation (1), the Executive Director may issue a certificate valid for a period of less than five years subject to the following criteria:

- (a) the risk profile of the ANS service provider;
- (b) maturity of the Safety and Quality Management Systems of the ANS service provider; and
- (c) any other criteria as may be determined by the Executive Director.; and

(c) by the addition after regulation 170.02.18 of the following regulation:

“Validation of foreign certificate

170.02.19 (1) A person or entity that has been approved or certified as an ANS provider by any other appropriate authority may apply to the Executive Director in the form and manner set out in the relevant ANS Part, for a validation of such certificate.

(2) The application for a validation referred to in subregulation (1) –

(a) must be accompanied by –

- (i) a certified copy of the certificate or approval to which the validation refers;
- (ii) the appropriate fee as provided for in Part 187;
- (iii) the manual of procedure referred to in the relevant ANS Part ; and
- (iv) a certificate or approval that was issued by the appropriate authority which is equal to or above the minimum

standard which may be established from time to time in accordance with ICAO standards and recommended practices.

- (b) may be subjected to the inspection of the air navigation service provider facilities or place of business in Namibia and abroad; and
 - (c) must be submitted at least 60 days before the date of the intended provision of the air navigation service.
- (3) A validation certificate or approval issued by the Executive Director –
- (a) is valid for the period of the certificate referred to in subregulation (2)(a)(iv);
 - (b) may upon application to the Executive Director be renewed for a further period.
- (4) Application for renewal of validation contemplated in subregulation (3)(b) must –
- (a) be submitted within 30 days before the date of expiry of such certificate or approval; and
 - (b) follow the process as referred to in subregulation (2)(a) and (b).
- (5) The holder of a certificate or approval validated by the Executive Director must comply with the requirements provided for in the relevant ANS Part.”.

Amendment of Part 171 of Regulations

9. Part 171 of the Regulations is amended –
- (a) by the substitution for subregulation (3) of regulation 171.01.1 of the following subregulation:
 - “ (3) In this Part, aeronautical telecommunication service refers to an air navigation service related to the provision of any of the following:
 - (a) radio navigation aids;
 - (b) communication procedures including those with procedures for air navigation services (PANS) tatus and administrative provisions ;
 - (c) communication systems including digital data communication systems and voice communication systems;
 - (d) surveillance and collision avoidance systems;
 - (e) aeronautical radio frequency spectrum utilisation;
 - (f) communication systems and procedures relating to remotely piloted aircraft systems c2 link;

- (g) other facilities supporting air traffic services (ATS) provided under Part 172;
 - (h) other facilities supporting aeronautical meteorological (A-MET) services provided under Part 174;
 - (i) other facilities supporting aeronautical information services (AIS) provided under Part 175; and
 - (j) other facilities supporting search and rescue (SAR) services provided under Part 179;
- (b) by the substitution for regulation 171.03.17 of the following regulation:

“Quality management system

171.03.17 An ATEL service provider must ensure that it meets quality requirements to help manage quality standards as set out in Document NAM-CATS-ATEL.”;

- (c) by the substitution for regulation 171.04.16 of the following regulation:

“Safety management system

171.04.16 An ATEL service provider must ensure that it meets safety requirements to help manage safety standards as set out in Document NAM-CATS-ATEL.”;and

- (d) by the substitution for regulation 171.05.6 of the following regulation:

“Communication systems and procedures relating to remotely piloted aircraft systems C2 link

171.05.6 An ATEL service provider must ensure that C2 link systems and procedures relating to remotely piloted aircraft systems comply with specification standards set out in Document NAM-CATS-ATEL.”.

Amendment of Part 172 of Regulations

10. Part 172 of the Regulations is amended by the repeal of regulation 172.04.33 and 172.04.34.

Amendment of Part 173 of Regulations

11. Part 173 of the Regulations is amended –

- (a) By the substitution for regulation 173.02.1 of the following regulation:

“Requirement for approval

173.02.1 (1) A person may not provide an instrument flight procedure design service for aerodromes and airspaces under the authority of Namibia unless –

- (a) such instrument flight procedure design service is –

- (i) certified or approved by the Executive Director as an instrument flight procedure design service provider; or
- (ii) validated as an instrument flight procedure design service provider under regulation 170.02.19; and

(b) the services are provided in accordance with this Part.

(2) A person may not design, maintain, review, amend or adapt flight procedures that are intended for use by civil aircraft operating within the territorial limits of Namibia, except under the authority of, and in accordance with the provisions of, a flight procedure design approval with the appropriate rating issued under this Part and in accordance with the requirements provided for in Part 170.

(3) The Executive Director may –

- (a) as part of the organisational functions of the Authority, provide a flight procedure design service;
- (b) agree with one or more states to provide a joint flight procedure design service;
- (c) delegate the provision of the service to an external agency or agencies; or
- (d) approve an agency to provide a flight procedure design service.

(4) In all cases mentioned in subregulation (2), the Executive Director remains responsible for all flight procedures for aerodromes and airspaces under the authority of Namibia.

(5) Flight procedures must be designed in accordance with the approved design criteria as described in regulation 173.04.9.

(6) A flight procedure design organisation intending to design an instrument flight procedure for aerodromes or airspace under the authority of Namibia must meet the requirements provided for in this Part.

(7) A flight procedure design organisation must utilise a quality management system at each stage of the flight procedure design process.

(8) A flight procedure design organisation must maintain and conduct periodic review of flight procedures for aerodromes and airspace under the authority of the Namibia and such reviews must be conducted at intervals of periods not exceeding five years.”;

(b) by the deletion of subregulations (5) and (6) of regulation 173.04.5.

Amendment of Part 174 of Regulations

12. Part 174 of the Regulations is amended –

(a) by the substitution for regulation 174.01.01 of the following regulation:

“Definitions and interpretation in this Part

“**174.01.1** (1) Definitions pertaining to this Part are contained in Document NAM-CATS-MET.

(2) For purposes of these regulations “A-MET service” includes, unless the context indicates otherwise, the entity that has been certified under this Part as an A-MET service provider to provide aviation meteorological services in terms of these regulations.

(3) Unless otherwise specified in this Part, where any act is required or expected to be performed or anything is required or expected to be done by an A-MET service in terms of these regulations, that act must be performed or thing must be done by the certified A-MET service provider.

(4) Subregulation (3) does not apply where an A-MET service provider has been exempted from performing the act or doing the thing by the Executive Director under these regulations.”;

(b) by the substitution for subregulation (1) of regulation 174.01.2 of the following subregulation:

“(1) This Part –

(a) prescribes –

(i) regulations and procedures governing the certification and operation of an A-MET service provider providing aviation meteorological services for air navigation within Namibia; and

(ii) requirements governing the provision of basic weather reports for aviation in accordance with Annex 3 to the Chicago Convention;

(b) applies to the entity that has been certified as an A-MET service provider or that applies to be certified as an A-MET service provider pursuant to these regulations and to Annex 3 to the Chicago Convention; and

(c) sets out certain administrative rules applying to the Executive Director in the administration of this Part.”;

(c) by the substitution for subregulation (1) of regulation 174.02.1 of the following subregulation:

“(1) A person may not provide an aviation meteorological service in Namibia unless that person has been certified as a meteorological services provider under regulation 174.02.3, and provides the service under the authority of, and in accordance with the provisions of a certificate issued in terms of this Part, and any additional requirements provided for in Part 170.;

(d) by the repeal of regulation 174.02.2;

(e) by the substitution for the heading of regulation 174.02.3 of the following heading:

“**Certification of A-MET service providers**”;

- (f) by the insertion after subregulation (2) of regulation 174.03.7 of the following subregulation:

“(2A) An A-MET service provider must ensure that each new MET facility is –

- (a) commissioned to meet the specification standards for that facility; and
- (b) installed in compliance with the requirements prescribed in this Part and the specification standards set out in Document NAM-CATS-MET before commissioning.”;

- (g) by the substitution for Regulation 174.03.17 of the following regulation:

“**Safety management system**

174.03.17 An A-MET service provider must ensure that it meets safety requirements to help manage safety standards as set out in Document NAM-CATS-MET.”;

- (h) by the addition after Regulation 174.03.18 of the following regulation:

“**Contingency plan**

174.03.19 (1) An A-MET service provider must develop and maintain a contingency plan for implementation in the event of disruption, or potential disruption, of aeronautical meteorological services in accordance with standards set out in Document NAM-CATS-MET

(2) The plan referred to in subregulation (1) must be submitted as part of the manual of procedures for approval by the Executive Director.”; and

- (i) by the addition after regulation 174.04.3 of the following regulation:

“**Human factors considerations**

174.04.4 An A-MET provider must where applicable, in the management and distribution of meteorological information, take into consideration human factors principles in accordance with the standards set out in Document NAM-CATS-MET.”.

Amendment of Part 175 of Regulations

13. Part 175 of the Regulations is amended –

- (a) by the substitution for regulation 175.03.7 of the following regulation:

“**Safety management system**

175.03.7 The AIS provider must ensure that it meets safety requirements to help manage safety standards as set out in Document NAM-CATS-AIS.”; and

- (b) by the substitution for regulation 175.09.2 of the following regulation:

“Availability

175.09.2 The AIS provider must make available all information and mandatory charts relating to the airspace over the high seas or airspaces of undetermined sovereignty administered by Namibia and ensure that such information and charts comply with the standards set out in Document NAM-CATS-AIS.”

Amendment of Part 179 of Regulations

- 14.** Part 179 of the Regulations is amended by the insertion after subregulation (1) of Regulation 179.02.1 of the following subregulation:

“(1A) The Executive Director must either individually, or in cooperation with another state, designate a search and rescue coordinating agency for the provision of aeronautical search and rescue services within the Windhoek Flight Information Region.”.
