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## NAMCAR: PART 96

### COMMERCIAL OPERATION OF NON-TYPE CERTIFICATED AIRCRAFT

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## **SUBPART 1: GENERAL**

### **96.01.1 Applicability**

- (1) This Part applies to -
  - (a) non-type certificated aircraft engaged in flying training or commercial air transport operations within Namibia;
  - (b) non-type certificated aircraft registered in Namibia;
  - (c) persons acting as flight crew members of non-type certificated aircraft registered in Namibia and engaged in flying training or commercial air transport operations; and
  - (d) persons on board a non-type certificated aircraft engaged in flying training or commercial air transport operations.
- (2) A non-type certificated aircraft shall not be used in commercial air transport operations unless the operator is the holder of the appropriate air service licence issued in terms of the Air Services Act: Provided that no amateur-built, production-built or ex-military aircraft shall be issued with an Air Service Licence, nor with any International Air Service Licence.
- (3) An amateur-built, production-built or ex-military aircraft may be issued with an air service licence for the purpose of flipping, as defined in sub-regulation (7).
- (4) A non-type certificated aircraft shall not be used for flight training unless the operator is the holder of the appropriate ATO approval, issued in terms of Part 141 of these Regulations.
- (5) The provisions of Part 24, Part 91 and Part 94 of these Regulations shall apply with the necessary changes to any non-type certificated aircraft unless specifically exempted by the provisions of this Part.
- (6) For the purpose of sub-regulation (2), tandem operations with hang-gliders, paragliders or parachutes, even if carried out for remuneration or reward, shall not be considered to be providing an air service as defined in the Air Services Act, nor to be a commercial air transport operation, as defined in **Part 1** of these Regulations.
- (7) For the purpose of sub-regulation (3), flipping is defined as the carrying of fare-paying passengers for the purpose of sight-seeing, and such operations shall be restricted as follows:
  - (a) flights shall commence and end at the same aerodrome or helicopter landing site without any intermediate landing, and without any disembarking taking place by any means while the aircraft is in flight;
  - (b) the duration of flights shall not exceed one hour of flight time; and
  - (c) the number of passengers carried, whether fare-paying or carried for free, shall not exceed nine.

## **SUBPART 2: FLIGHT CREW**

### **96.02.1 In-flight relief of flight crew members**

In the case of a large non-type certificated aircraft engaged in commercial air transport operations, the provisions of Part 121 shall apply.

### **96.02.2 Cabin crew member compliment**

In the case of a large non-type certificated aircraft engaged in commercial air transport operations, the provisions of Part 121 shall apply.

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

- (1) The operator of a non-type certificated aircraft engaged in commercial air transport shall -
  - (a) establish a scheme for the Regulation of flight time and duty periods for each flight crew member;
  - (b) include the scheme referred to in Regulation 96.03.1;
  - (c) ensure that each flight crew member complies with the provisions of the scheme referred to in paragraph (a);
  - (d) not cause or permit any flight crew member to fly in the aircraft if such operator knows or has been made aware that such flight crew member -
    - (i) will exceed the flight time and duty periods referred to in sub-regulation (1)(a) while on flight duty; or
    - (ii) is suffering from or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from fatigue which may endanger the safety of the aircraft or its flight crew members and passengers; and
  - (e) not schedule a flight crew member for active flight duty for a period exceeding eight consecutive hours during any given flight time and duty period unless authorised in the scheme referred to in paragraph (a).
- (2) Except with the approval of the Executive Director, the flight time and duty scheme of the operator shall not be in conflict with the provisions of Part 91.
- (3) The provisions to be included in a flight time and duty scheme referred to in sub-regulation (1) shall be as prescribed in Document NAM-CATS 96.

### **96.02.4 Training and checking**

- (1) The owner of a non-type certificated aircraft engaged in commercial air transport operations shall establish and maintain a ground and flight training and recurrent training programme for flight crew members in his permanent or part-time employ.
- (2) The training shall be provided by the holder of an ATO approval issued in terms of Part 141.
- (3) Training shall be in accordance with the syllabi prescribed in Document NAM-CATS 96.

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

### **96.03.1 Operations manual**

- (1) The operator of a non-type certificated aircraft used for the purpose of flight training or in commercial air transport operations shall draw up an operations manual containing all information required under this Part and setting out the manner in which such operator will conduct the flying training for which he or she has been approved in terms of Part 141 of these Regulations, or operate the air service for which such operator is licensed in terms of the Air Services Act, as the case may be.

- (2) The operator shall submit the operations manual in duplicate or via electronic submission to the Executive Director for approval.
- (3) If the Executive Director is satisfied that the operator -
  - (a) will comply with the provisions of Regulation 96.04.7; and
  - (b) will not conduct flying training contrary to the conditions of the ATO approval held, or operate the air service concerned contrary to any provision of the Act or the Air Services Act, as the case may be,the Executive Director, or his delegate shall certify in writing on both copies of the operations manual, or via an official letter in the case of electronic submission, that such manual has been approved, and shall return one copy of the approved operations manual to the operator.
- (4) The operator shall submit an amendment to an approved operations manual in duplicate, or via electronic submission, to the Executive Director for approval.
- (5) If the Executive Director is satisfied that the operator will comply with the provisions of sub-regulation (3)(a) and (b), the Executive Director shall certify in writing on both copies of the amendment, or via official letter in the case of electronic submission of the amendment to the approved operations manual that such amendment has been approved, and shall return one copy of the approved amendment to the operator.
- (6) The operator shall at all times operate the non-type certificated aircraft, when operated in terms of this Part, in accordance with the approved operations manual or an approved amendment thereto.
- (7) The operator shall -
  - (a) ensure that all operations personnel are able to understand the technical language used in those sections of the operations manual which pertain to their duties;
  - (b) ensure that every flight is conducted in accordance with the operations manual and that those parts of the operations manual which are required for the conduct of a flight, are easily accessible to the flight crew members on board;
  - (c) make the operations manual available for the use and guidance of operations personnel;
  - (d) provide the flight crew members with their own personal copy of the sections of the operations manual which are relevant to the duties assigned to them;
  - (e) keep the operations manual up to date; and
  - (f) keep the operations manual in a safe place.
- (8) The contents of the operations manual shall not contravene the conditions contained in the operating certificate issued to the operator in terms of Regulation 96.04.3.
- (9) The structure and contents of the operations manual referred to in sub-regulation (1) shall be as prescribed in Document NAM-CATS 96.

### **96.03.2 Exemptions**

Notwithstanding the provisions of NAMCAR 91, a person may operate an amateur-built or production-built aircraft, including a microlight aeroplane, while conducting flight training or in a commercial air transport operation without carrying on board any of the documents prescribed in the foregoing Regulation should such carriage not be safely or practically possible.

### **96.03.3 Disclosure**

- (1) A provider of flight training using, or a commercial air transport operator of, a non-type certificated aircraft shall disclose to any student or any fare-paying passenger to be carried on board the aircraft, as applicable, the warning that the aircraft is an aircraft not required to comply with all the Regulations for type-certificated aircraft and that boarding the aircraft is at one's own risk.
- (2) The disclosure referred to in sub-regulation (1) shall be made to any potential student before commencing flight training, or to any passenger before a ticket is purchased by means suitable to the kind of operation and shall be repeated in the flight training agreement or on the passenger ticket or similar contract of carriage, as applicable.

## **SUBPART 4: OPERATING CERTIFICATE**

### **96.04.1 Operating certificate**

The operator of a non-type certificated aircraft used for the provision of flight training or in commercial air transport operations, as the case may be, shall not operate the aircraft unless such operator is the holder of a valid -

- (a) ATO approval, issued in terms of Part 141; or
- (b) licence issued in terms of the Air Services Act; and
- (c) operating certificate issued in terms of Regulation 96.04.3.

### **96.04.2 Application for operating certificate**

An application for an operating certificate shall be made to the Executive Director in the appropriate form as prescribed in Document NAM-CATS 96 and shall be accompanied by the appropriate fee as prescribed in Part 187.

### **96.04.3 Adjudication of application for operating certificate**

- (1) In considering an application referred to in Regulation 96.04.2 the Executive Director may conduct the investigation he or she deems necessary.
- (2) An application shall be granted and the operating certificate issued if the Executive Director is satisfied that -
  - (a) the applicant will comply with the provisions of Regulation 96.04.7; and
  - (b) the applicant will not conduct flight training contrary to the ATO approval held, or operate the air service concerned contrary to any provision of the Act, or the Air Services Act.
- (3) If the Executive Director is not so satisfied, he or she shall notify the applicant, stating the reasons in the notification, and grant the applicant the opportunity to rectify or supplement any defect within the period determined by the Executive Director, after which period the Executive Director shall grant or refuse the application concerned.
- (4) An operating certificate shall be issued on the appropriate form as prescribed in Document NAM-CATS 96, under such conditions that the Executive Director may determine.

#### **96.04.4 Period of validity of operating certificate**

- (1) An operating certificate shall be valid for such period as may be determined by the Executive Director: Provided that such period shall not exceed a period of 12 months from the date of issuing thereof.
- (2) If the holder of an operating certificate applies at least 30 days prior to the expiry thereof for a new operating certificate, that first-mentioned operating certificate shall, notwithstanding the provisions of sub-regulation (1), remain in force until such holder is notified by the Executive Director of the result of the application for the issuing of a new operating certificate.

#### **96.04.5 Safety inspections and audits**

- (1) An applicant for an operating certificate shall permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits which may be necessary to verify the validity of an application made in terms of Regulation 96.04.2.
- (2) The holder of an operating certificate shall permit an authorised officer, inspector or authorised person to carry out such safety inspections and audits which may be necessary to determine compliance with the appropriate requirements prescribed in this part.

#### **96.04.6 Duties of holder of operating certificate**

The holder of an operating certificate shall -

- (a) notify the Executive Director in the manner as prescribed in Document NAM-CATS 96, before any change is effected to the particulars on the operating certificate;
- (b) keep the operating certificate in a safe place and produce such operating certificate to an authorised officer, inspector or authorised person for inspection if so requested by such officer, inspector or person authorised person; and
- (c) not commence or continue with the air service concerned unless such holder is the holder of a valid operating certificate.

#### **96.04.7 Register of operating certificates**

- (1) The Executive Director shall maintain a register of all operating certificates issued in terms of this Part.
- (2) The register shall contain the following particulars -
  - (a) the full name and, if any, the trade name of the holder of the operating certificate;
  - (b) the postal address of the holder of the operating certificate;
  - (c) the number of the operating certificate issued to the holder;
  - (d) particulars of the type of air service for which the operating certificate was issued;
  - (e) particulars of the category of aircraft for which the operating certificate was issued; and

- (f) the date on which the operating certificate was issued.
- (3) The particulars referred to in sub-regulation (2) shall be recorded in the register within 30 days from the date on which the operating certificate is issued by the Executive Director.
- (4) The register shall be kept in a safe place at the office of the Executive Director.
- (5) A copy of the register shall be furnished by the Executive Director, on payment of the appropriate fee as prescribed to any person who requests the copy.

## **SUBPART 5: MAINTENANCE**

### **96.05.1 General**

- (1) A non-type certificated aircraft operated in terms of Part 96 used for the provision of flight training at an ATO or in commercial air transport operations shall be maintained by an appropriately rated AME or AP working under the auspices of an appropriately rated AMO specified in the approved Maintenance Control Manual.
- (2) The Maintenance Control Manual shall -
  - (a) be drawn up in the format as prescribed in Document NAM-CATS 44;
  - (b) prescribe who may carry out maintenance on the aircraft, and incorporate the terms of the contract between the operator and any outside maintenance personnel or organisation responsible for all or part of the maintenance, if any; and
  - (c) prescribe the environmental conditions under which maintenance may be carried out and, if applicable, the special tools and equipment that are to be used in maintenance.
- (3) Notwithstanding the provisions of subregulations (1) and regulation 96.01.1(4), the privilege extended by NAMCAR 44 shall apply only in respect of an owner who is the holder of the valid applicable AME licence and ratings issued in terms of Part 66.
- (4) In the case of a DTO, an aircraft shall be maintained by a person approved by the Executive Director or the organisation designated in terms of Part 149, as the case may be in accordance with Part 24 and Part 44, with the necessary changes as specified in the approved Maintenance Control Manual.

### **96.05.2 Certificate of airworthiness**

The authority to fly for a non-type certificated aircraft approved to be operated for the provision of flight training or in commercial air transport operations is issued in the form of a certificate of airworthiness for non-type certificated aircraft as prescribed in Document NAM-CATS 24.

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## NAM-CATS 96

### Commercial Operation of Non-Type Certificated Aircraft

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1. [Notification](#)

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### **96.02.3 FLIGHT TIME AND DUTY PERIODS**

The provisions to be included in a flight time and duty period scheme shall be those prescribed in Documents NAM-CATS 121, NAM-CATS 127 or NAM-CATS 135, as applicable to the type of non-type certificated aircraft engaged in commercial air transport operations.

### **96.02.4 TRAINING AND CHECKING**

The training programme to be established shall be based on those prescribed in Documents NAM-CATS 121, NAM-CATS 121 or NAM-CATS 135, as applicable to the type of non-type certificated aircraft engaged in commercial air transport operations.

### **96.03.1 OPERATIONS MANUAL**

#### **1. Structure of operations manual**

- (1) An operator must ensure that the main structure of the operations manual is as follows:

*Part 1: General*

This part must comprise all non-aircraft type-related operational policies, instructions and procedures needed for a safe operation and must comply with all relevant CAR.

*Part 2: Aircraft operating matters*

This part must comprise all aircraft type-related instructions and procedures needed for a safe operation. It must take account of the different types of aircraft or variants used by the operator.

*Part 3: Route and aerodrome instructions and information*

This part must comprise all instructions and information needed for the area of operation.

*Part 4: Training*

This part must comprise all training instructions for personnel required for a safe operation.

*Part 5: Maintenance Control Manual*

This part must comprise all instructions and information needed for the continuous airworthiness of the aircraft.

- (2) An operator must ensure that the contents of the operations manual are in accordance with section 2 of this technical standard, and relevant to the area and type of operation.
- (3) An operator must ensure that the detailed structure of the operations manual is approved by the Executive Director.

#### **2. Contents of operations manual**

An operator shall ensure that those items, listed below, which are applicable to his or her particular operation and the type of aircraft operated, are included in his or her operations manual. Most, if not all of the items would be applicable to the operator of a large veteran aircraft, operating a charter flight internationally, while only a few would be applicable to the commercial operator of a single-seater production-built aircraft operated in terms of an air service licence.

## **2.1. PART 1: GENERAL**

### **2.1.1. Administration and control of operations manual**

- (1) Introduction
  - (a) A statement that the manual complies with all applicable CAR and with the terms and conditions of the applicable operating certificate.
  - (b) A statement that the manual contains operational instructions that are to be complied with by the relevant personnel.
  - (c) A list and brief description of the various parts, their contents, applicability and use.
  - (d) Explanations and definitions of terms and words needed for the use of the manual.
- (2) System of amendment and revision
  - (a) Who is responsible for the issuance and insertion of amendments and revisions.
  - (b) A record of amendments and revisions with insertion dates and effective dates.
  - (c) A statement that handwritten amendments and revisions are not permitted except in situations requiring immediate amendment or revision in the interests of aviation safety.
  - (d) A description of the system for the annotation of pages and their effective dates.
  - (e) A list of effective pages.
  - (f) Annotation of changes (on text pages and, as far as practicable, on charts and diagrams).
  - (g) Temporary revisions.
  - (h) A description of the distribution system for the manuals, amendments and revisions.

### **2.1.2. Organisation and responsibilities**

- (1) Organisational structure

A description of the organisational structure including the general organogram and operations department organogram. The organogram must depict the relationship between the Operations Department and the other Departments of the organisation. In particular, the subordination and reporting lines of all Divisions, Departments etc., which pertain to the safety of flight operations, must be shown.
- (2) Nominated post holders

The name of each nominated post holder responsible for flight operations, the maintenance system, flight crew training and ground operations. A description of their functions and responsibilities must be included.
- (3) Responsibilities and duties of operations management

A description of the duties, responsibilities and authority of operations management personnel pertaining to the safety of flight operations and the compliance with the applicable CAR.

- (4) Authority, duties and responsibilities of the pilot-in-command

A statement defining the authority, duties and responsibilities of the pilot-in-command.

- (5) Duties and responsibilities of flight crew members other than the pilot-in-command.

A statement defining the duties and responsibilities of flight crew members other than the pilot-in-command.

### **2.1.3. Operational control and supervision**

- (1) Supervision of the operation by the operator

A description of the system for supervision of the operation by the operator. This must show how the safety of flight operations and the qualifications of personnel are supervised. In particular, the procedures related to the following items must be described:

- (a) licence and qualification validity;
- (b) competence of operations personnel; and
- (c) control, analysis and storage of records, flight documents, additional information and data.

- (2) System of promulgation of additional operational instructions and information

A description of any system for promulgating information which may be of an operational nature but is supplementary to that in the operations manual. The applicability of this information and the responsibilities for its promulgation must be included.

- (3) Accident prevention and flight safety programme

A description of the main aspects of the flight safety programme including -

- (a) programmes to achieve and maintain risk-awareness by all persons involved in flight operations; and
- (b) evaluation of aviation accidents and incidents and the promulgation of related information.

- (4) Operational control

A description of the procedures and responsibilities necessary to exercise operational control with respect to flight safety.

### **2.1.4. Quality control system**

A description of the quality control system adopted.

### **2.1.5. Flight crew composition**

- (1) Flight crew composition

An explanation of the method for determining flight crew compositions taking account of the following:

- (a) the type of aircraft being used;
- (b) the area and type of operation being undertaken;

- (c) the phase of the flight;
  - (d) the minimum flight crew requirement and flight duty period planned;
  - (e) experience (total and on type), recency and qualification of the flight crew members; and
  - (f) the designation of the pilot-in-command and, if necessitated by the duration of the flight, the procedures for the relief of the pilot-in-command or other members of the flight crew.
- (2) Designation of the pilot-in-command  
The rules applicable to the designation of pilot-in-command.
- (3) Flight crew incapacitation  
Instructions on the succession of command in the event of flight crew incapacitation.

#### **2.1.6. Qualification requirements**

- (1) A description of the required licence, rating(s), qualification/competency (e.g. for routes and aerodromes), experience, training, checking and recency for operations personnel to conduct their duties. Consideration must be given to the aircraft type, kind of operation and composition of the flight crew.
- (2) Flight crew
  - (a) Pilot-in-command
  - (b) Co-pilot
  - (c) Pilot under supervision
  - (d) Operation on more than one type or variant.
- (3) Cabin crew
  - (a) Senior cabin crew member
  - (b) Cabin crew member
    - (i) Required cabin crew member
    - (ii) Additional cabin crew member and cabin crew member during familiarisation flights.
  - (c) Operation on more than one type or variant.
- (4) Training, checking and supervision personnel
  - (a) For flight crew
  - (b) For cabin crew.
- (5) Other operations personnel.

#### **2.1.7. Flight crew health precautions**

- (1) Flight crew health precautions

The relevant regulations and guidance to flight crew members concerning health including -

- (a) alcohol and other intoxicating liquor;
- (b) narcotics;
- (c) drugs;
- (d) sleeping tablets;
- (e) pharmaceutical preparations;
- (f) immunisation;
- (g) scuba diving;
- (h) blood donation;
- (i) meal precautions prior to and during flight;
- (j) sleep and rest; and
- (k) surgical operations.

**Note:** See Document NAM-CATS 67.

#### **2.1.8. Flight time limitations**

- (1) Flight time and duty period limitations and rest requirements

A description of the flight time and duty period limitations and rest requirements prescribed in NAM-CATS 96 as applicable to the operation.

- (2) Exceedances of flight time and duty period limitations and/or reductions of rest periods

Conditions under which flight time and duty periods may be exceeded or rest periods may be reduced and the procedures used to report these modifications.

#### **2.1.9. Operating procedures**

- (1) Flight preparation instructions

As applicable to the operation:

- (a) Minimum flight altitudes

A description of the method of determination and application of minimum altitudes including -

- (i) a procedure to establish the minimum altitudes/flight levels for VFR flights; and
  - (ii) a procedure to establish the minimum altitudes/flight levels for IFR flights.
- (b) Criteria for determining the usability of aerodromes.
  - (c) Methods for the determination of aerodrome operating minima

The method for establishing aerodrome operating minima for IFR flights in accordance with Part 91. Reference must be made to procedures for the determination of the visibility and/or runway visual range and for the applicability

of the actual visibility observed by the pilots, the reported visibility and the reported runway visual range.

- (d) En route operating minima for VFR flights or VFR portions of a flight and, where single-engine aircraft are used, instructions for route selection with respect to the availability of surfaces that permit a safe forced landing.
- (e) Presentation and application of aerodrome and en route operating minima.
- (f) Interpretation of meteorological information

Explanatory material on the decoding of MET forecasts and MET reports relevant to the area of operations, including the interpretation of conditional expressions.

- (g) Determination of the quantities of fuel, oil and water methanol carried

The methods by which the quantities of fuel, oil and water methanol to be carried, are determined and monitored in flight. This section must also include instructions on the measurement and distribution of the fluid carried on board. Such instructions must take account of all circumstances likely to be encountered on the flight, including the possibility of in-flight re-planning and of failure of one or more of the aircraft's power plants. The system for maintaining fuel and oil records must also be described.

- (h) Mass and centre of gravity

The general principles of mass and centre of gravity including:

- (i) definitions;
  - (ii) methods, procedures and responsibilities for preparation and acceptance of mass and centre of gravity calculations;
  - (iii) the policy for using either standard and/or actual masses;
  - (iv) the method for determining the applicable passenger, baggage and cargo mass;
  - (v) the applicable passenger and baggage masses for various types of operations and aircraft type;
  - (vi) general instruction and information necessary for verification of the various types of mass and balance documentation in use;
  - (vii) Last-minute changes procedures;
  - (viii) specific gravity of fuel, oil and water methanol; and
  - (ix) seating policy/procedures.
- (i) ATS flight plan
- Procedures and responsibilities for the preparation and submission of the air traffic service flight plan. Factors to be considered include the means of submission for both individual and repetitive flight plans.
- (j) Operational flight plan

Procedures and responsibilities for the preparation and acceptance of the operational flight plan. The use of the operational flight plan must be described including samples of the operational flight plan formats in use.

(k) Operator's flight folio

The responsibilities and the use of the operator's flight folio must be described, including samples of the format used.

A technical log may be used in place of a flight folio, if it contains the required information.

(l) List of documents, forms and additional information to be carried.

(2) Ground handling instructions

(a) Fuelling procedures

A description of fuelling procedures, including -

- (i) safety precautions during refuelling and defueling including when an APU is in operation or when a turbine engine is running and the prop-brakes are on;
- (ii) refuelling and defueling when passengers are embarking, on board or disembarking; and
- (iii) precautions to be taken to avoid mixing fuels.

(b) Aircraft, passengers and cargo handling procedures related to safety

A description of the handling procedures to be used when allocating seats and embarking and disembarking passengers and when loading and unloading the aircraft. Further procedures, aimed at achieving safety whilst the aircraft is on the apron, must also be given. Handling procedures must include -

- (i) disembarking of persons;
- (ii) sick passengers and persons with reduced mobility;
- (iii) transportation of inadmissible passengers, deportees or persons in custody;
- (iv) permissible size and weight of hand baggage;
- (v) loading and securing of items in the aircraft;
- (vi) special loads and classification of load compartments;
- (vii) positioning of ground equipment;
- (viii) operation of aircraft doors;
- (ix) safety on the apron, including fire prevention, blast and suction areas;
- (x) start-up, ramp departure and arrival procedures;
- (xi) servicing of aircraft;
- (xii) documents and forms for aircraft handling; and
- (xiii) multiple occupancy of aircraft seats.

(c) Procedures for the refusal of embarkation and for disembarkation

Procedures to ensure that persons who appear to be intoxicated or who demonstrate by manner or physical indications that they are under the influence of drugs, except medical patients under proper care, are refused embarkation.

(d) De-icing and anti-icing on the ground

A description of the de-icing and anti-icing policy and procedures for aircraft on the ground. These must include descriptions of the types and effects of icing and other contaminants on aircraft whilst stationary during ground movements and during take-off. In addition, a description of the fluid types used must be given including -

- (i) proprietary or commercial names;
- (ii) characteristics;
- (iii) effects on aeroplane performance;
- (iv) hold-over times; and
- (v) precautions during usage.

(3) Flight procedures

(a) VFR/IFR policy

A description of the policy for allowing flights to be made under VFR, or of requiring flights to be made under IFR, or of changing from one to the other.

(b) Navigation procedures

A description of all navigation procedures relevant to the type(s) and area(s) of operation. Consideration must be given to -

- (i) standard navigation procedures including policy for carrying out independent cross-checks of keyboard entries where these affect the flight path to be followed by the aircraft;
- (ii) MNPS and POLAR navigation and navigation in other designated areas;
- (iii) RNAV;
- (iv) in-flight re-planning; and
- (v) procedures in the event of system degradation.

(c) Altimeter setting procedures.

(d) Altitude alerting system procedures.

(e) Ground proximity warning system procedures.

(f) Policy and procedures for the use of ACAS.

(g) Policy and procedures for in-flight fuel management.

(h) Adverse and potentially hazardous atmospheric conditions.

Procedures for operating in, and/or avoiding, potentially hazardous atmospheric conditions including -

- (i) thunderstorms;
  - (ii) icing conditions;
  - (iii) turbulence;
  - (iv) windshear;
  - (v) jetstream;
  - (vi) volcanic ash clouds;
  - (vii) heavy precipitation;
  - (viii) sand storms;
  - (ix) mountain waves; and
  - (x) significant temperature inversions.
- (i) Wake turbulence
- Wake turbulence separation criteria, taking into account aircraft types, wind conditions and runway location.
- (j) Flight crew members at their stations
- The requirements for flight crew members to occupy their assigned stations or seats during the different phases of flight or whenever deemed necessary in the interests of aviation safety.
- (k) Use of safety belts for flight crew and passengers
- The requirements for flight crew members and passengers to use safety belts and/or harnesses during the different phases of flight or whenever deemed necessary in the interests of aviation safety.
- (l) Admission to flight deck
- The conditions for the admission to the flight deck of persons other than the flight crew.
- (m) Use of vacant flight crew seats
- The conditions and procedures for the use of vacant flight crew seats.
- (n) Incapacitation of flight crew members
- Procedures to be followed in the event of incapacitation of flight crew members in flight. Examples of the types of incapacitation and the means for recognising them, must be included.
- (o) Cabin safety requirements
- Procedures covering:
- (i) cabin preparation for flight, in-flight requirements and preparation for landing including procedures for securing cabin and galleys;

- (ii) procedures to ensure that passengers are seated where, in the event that an emergency evacuation is required, they may best assist and not hinder evacuation from the aeroplane;
    - (iii) procedures to be followed during passenger embarkation and disembarkation;
    - (iv) procedures in the event of fuelling with passengers on board or embarking and disembarking; and
    - (v) smoking on board.
  - (p) Passenger briefing procedures  
The contents, means and timing of passenger briefing in accordance with NAMCAR 91.
  - (q) Procedures for aircraft operated whenever required cosmic or solar radiation detection equipment is carried.
  - (r) Procedures for the use of cosmic or solar radiation detection equipment and for recording its readings including actions to be taken in the event that limit values specified in the operations manual are exceeded. In addition, the procedures, including ATS procedures, to be followed in the event that a decision to descend or re-route is taken.
- (4) All weather operations.
- (5) ETOPS.
- (6) Use of the minimum equipment and configuration deviation list(s).
- (7) Non-revenue flights  
Procedures and limitations for -
- (a) training flights;
  - (b) test flights;
  - (c) delivery flights;
  - (d) ferry flights;
  - (e) demonstration flights; and
  - (f) positioning flights,  
including the kind of persons who may be carried on such flights.
- (8) Oxygen requirements
- (a) An explanation of the conditions under which oxygen must be provided and used.
  - (b) The oxygen requirements specified for -
    - (i) flight deck crew;
    - (ii) cabin crew; and
    - (iii) passengers.

(9) Display criteria

Where a non-type certificated aircraft is to be used in aerial displays, the criteria for such displays shall be listed here. Sequences are not required to be set out as these may vary from display to display.

**2.1.10. Dangerous goods and weapons**

- (1) Information, instructions and general guidance on the conveyance of dangerous goods including -
  - (a) operator's policy on the conveyance of dangerous goods;
  - (b) guidance on the requirements for acceptance, labelling, handling, stowage and segregation of dangerous goods;
  - (c) procedures for responding to emergency situations involving dangerous goods; and
  - (d) duties of all personnel involved as referred to in Part 92; and
- (2) The conditions under which weapons, munitions of war and sporting weapons may be carried.

**2.1.11. Security**

- (1) Security instructions and guidance of a non-confidential nature which must include the authority and responsibilities of operations personnel. Policies and procedures for handling and reporting crime on board such as unlawful interference, sabotage, bomb threats, and hijacking must also be included.
- (2) A description of preventative security measures and training.

**Note:** *Parts of the security instructions and guidance may be kept confidential.*

**2.1.12. Handling of aviation accidents and incidents**

Procedures for the handling, notifying and reporting of aviation accidents and incidents. This section must include -

- (1) definitions of aviation accidents and incidents and the relevant responsibilities of all persons involved;
- (2) the description of which operator departments, authorities or other institutions have to be notified by which means and in which sequence in case of an aviation accident;
- (3) special notification requirements in the event of an aviation accident or incident when dangerous goods are being carried;
- (4) a description of the requirements to report specific aviation accidents and incidents;
- (5) the forms used for reporting and the procedure for submitting them to the relevant authority must also be included; and
- (6) if the operator develops additional safety related reporting procedures for its own internal use, a description of the applicability and related forms to be used.

### **2.1.13. Rules of the air**

Rules of the air including -

- (1) visual and instrument flight rules;
- (2) territorial application of the rules of the air;
- (3) communication procedures including COM-failure procedures;
- (4) information and instructions relating to the interception of civil aircraft;
- (5) the circumstances in which a radio listening watch is to be maintained;
- (6) signals;
- (7) time system used in operation;
- (8) ATC clearances, adherence to flight plan and position reports;
- (9) visual signals used to warn an unauthorised aircraft flying in or about to enter a restricted, prohibited or danger area;
- (10) procedures for pilots observing an aviation accident or receiving a distress transmission;
- (11) the ground/air visual codes for use by survivors, description and use of signal aids; and
- (12) distress and urgency signals.

## **2.2. PART 2: AIRCRAFT OPERATING MATTERS - TYPE RELATED**

Taking account of the differences between types, and variants of types, under the following headings:

### **2.2.1. General information and units of measurement**

General information (e.g. aircraft dimensions), including a description of the units of measurement used for the operation of the aircraft type concerned and conversion tables.

### **2.2.2. Limitations**

A description of the certified limitations and the applicable operational limitations including -

- (a) certification status;
- (b) passenger seating configuration for each aircraft type including a pictorial presentation;
- (c) types of operation that are approved (e.g. IFR/VFR, CAT II/III, flights in known icing conditions, etc.);
- (d) flight crew composition;
- (e) mass and centre of gravity;
- (f) speed limitations;
- (g) flight envelope(s);
- (h) wind limits including operations on contaminated runways;
- (i) performance limitations for applicable configurations;
- (j) runway slope;

- (k) limitations on wet or contaminated runways;
- (l) airframe contamination; and
- (m) system limitations.

### **2.2.3. Normal procedures**

The normal procedures and duties assigned to the flight crew, the appropriate check-lists, the system for use of the check-lists and a statement covering the necessary co-ordination procedures between flight deck crew and cabin crew. The following normal procedures and duties must be included:

- (a) pre-flight;
- (b) pre-departure;
- (c) altimeter setting and checking;
- (d) taxi, take-off and climb;
- (e) noise abatement;
- (f) cruise and descent;
- (g) approach, landing preparation and briefing;
- (h) VFR approach;
- (i) instrument approach;
- (j) visual approach and circling;
- (k) missed approach;
- (l) normal landing;
- (m) post landing; and
- (n) operation on wet and contaminated runways.

### **2.2.4. Abnormal and emergency procedures**

The abnormal and emergency procedures and duties assigned to the flight crew, the appropriate check-lists, the system for use of the check-lists and a statement covering the necessary co-ordination procedures between flight crew and cabin crew. The following abnormal and emergency procedures and duties must be included:

- (a) flight crew incapacitation;
- (b) fire and smoke drills;
- (c) unpressurised and partially pressurised flight;
- (d) exceeding structural limits such as overweight landing;
- (e) exceeding cosmic radiation limits;
- (f) lightning strikes;

- (g) distress communications and alerting ATC to emergencies;
- (h) engine failure;
- (i) system failures;
- (j) guidance for diversion in case of serious technical failure;
- (k) ground proximity warning;
- (l) ACAS warning;
- (m) windshear; and
- (n) emergency landing/ditching.

#### **2.2.5. Performance**

- (1) Performance data must be provided in a form in which it can be used without difficulty.
- (2) Performance data  

Performance material which provides the necessary data for compliance with the performance requirements prescribed in Part 1 of this technical standard must be included to allow the determination of -

  - (a) take-off climb limits - mass, altitude, temperature;
  - (b) take-off field length (dry, wet, contaminated);
  - (c) net flight path data for obstacle clearance calculation or, where applicable, take-off flight path;
  - (d) the gradient losses for banked climb-outs;
  - (e) en route climb limits;
  - (f) approach climb limits;
  - (g) landing climb limits;
  - (h) landing field length (dry, wet, contaminated) including the effects of an in-flight failure of a system or device, if it affects the landing distance;
  - (i) brake energy limits; and
  - (j) speeds applicable for the various flight stages (also considering wet or contaminated runways).
- (3) Supplementary data covering flights in icing conditions

Any certificated performance related to an allowable configuration, or configuration deviation, such as anti-skid inoperative, must be included.

If performance data, as required for the appropriate performance class, is not available in the approved aircraft flight manual, then other data acceptable to the Executive Director must be included. Alternatively, the operations manual may contain cross-reference to the approved data contained in the aircraft flight manual where such data is not likely to be used often or in an emergency.

- (4) Additional performance data  
Additional performance data, where applicable, including -
  - (a) all-engine climb gradients;
  - (b) drift-down data;
  - (c) effect of de-icing/anti-icing fluids;
  - (d) flight with landing gear down;
  - (e) for aircraft with 3 or more engines, one engine inoperative ferry flights; and
  - (f) flights conducted under the provisions of the Configuration Deviation List.

**2.2.6. Flight planning**

- (1) Data and instructions necessary for pre-flight and in-flight planning including factors such as speed schedules and power settings. Where applicable, procedures for engine(s)-out operations, ETOPS and flights to isolated aerodromes must be included.
- (2) The method for calculating fuel needed for the various stages of flight in accordance with NAM-CATS 91

**2.2.7. Mass and balance**

Instructions and data for the calculation of the mass and balance including -

- (a) calculation system (e.g. index system);
- (b) information and instructions for completion of mass and balance documentation, including manual and computer generated types;
- (c) limiting masses and centre of gravity of the various versions; and
- (d) dry operating mass and corresponding centre of gravity or index.

**2.2.8. Loading**

Procedures and provisions for loading and securing the load in the aircraft.

**2.2.9. Configuration deviation list**

The Configuration Deviation List(s) (CDL), if provided by the manufacturer, taking account of the aircraft types and variants operated including procedures to be followed when an aircraft is being dispatched under the terms of its CDL.

**2.2.10. Minimum equipment list**

The Minimum Equipment List (MEL) taking account of the aircraft types and variants operated and the type(s)/area(s) of operation.

**2.2.11. Survival and emergency equipment including oxygen**

- (1) A list of the survival equipment to be carried for the routes to be flown and the procedures for checking the serviceability of this equipment prior to take-off. Instructions regarding the location, accessibility and use of survival and emergency equipment and its associated check-lists(s) must also be included.

- (2) The procedure for determining the amount of oxygen required and the quantity that is available. The flight profile, number of occupants and possible cabin decompression must be considered. The information provided must be in a form in which it can be used without difficulty.

#### **2.2.12. Emergency evacuation procedures**

- (1) Instructions for preparation for emergency evacuation including flight crew co-ordination and emergency station assignment.
- (2) Emergency evacuation procedures

A description of the duties of all members of the flight crew for the rapid evacuation of an aircraft and the handling of the passengers in the event of a forced landing, ditching or other emergency.

#### **2.2.13. Aircraft systems**

A description of the aircraft systems, related controls and indications and operating instructions.

### **2.3. PART 3: ROUTE AND AERODROME INSTRUCTIONS AND INFORMATION**

Instructions and information relating to communications, navigation and aerodromes including minimum flight levels and altitudes for each route to be flown and operating minima for each aerodrome planned to be used, including -

- (a) minimum flight level/altitude;
- (b) operating minima for departure, destination and alternate aerodromes;
- (c) communication facilities and navigation aids;
- (d) runway data and aerodrome facilities;
- (e) approach, missed approach and departure procedures including noise abatement procedures;
- (f) COM-failure procedures;
- (g) search and rescue facilities in the area over which the aeroplane is to be flown;
- (h) a description of the aeronautical charts that must be carried on board in relation to the type of flight and the route to be flown, including the method to check their validity;
- (i) availability of aeronautical information and MET services;
- (j) en route COM/NAV procedures including holding; and
- (k) aerodrome categorisation for flight crew competence qualification.

### **2.4. PART 4: TRAINING**

- (1) Training syllabi and checking programmes for all operations personnel assigned to operational duties in connection with the preparation and/or conduct of a flight.
- (2) Training syllabi and checking programmes must include -
  - (a) For flight crew  
All relevant items prescribed in Parts 94, 61 and 63, and Subpart 2 of Part 96;
  - (b) For cabin crew

- All relevant items prescribed in Part 64. and Subpart 2 of Part 96;
- (c) For operations personnel concerned, including flight crew members -
    - (i) All relevant items prescribed in Part 92; and
    - (ii) All relevant items regarding operator security.
  - (d) For operations personnel other than flight crew members (e.g. dispatcher, handling personnel, etc.) All other relevant items pertaining to their duties.
- (3) Procedures
- (a) Procedures for training and checking.
  - (b) Procedures to be applied in the event that personnel do not achieve or maintain the required standards.
  - (c) Procedures to ensure that abnormal or emergency situations requiring the application of part or all of abnormal or emergency procedures and simulation of IMC by artificial means, are not simulated during commercial flights.
- (4) Description of documentation to be stored and storage periods.

#### **96.04.6 DUTIES OF HOLDER OF OPERATING CERTIFICATE**

##### **1. Notification**

Before change is effected to an operating certificate, the holder of the operating certificate must notify the Executive Director in the following manner -

- (1) the notification must be made in the form prescribed by the Executive Director; and
- (2) be accompanied by a certified true copy of the air service licence held by the holder and the operating certificate concerned.