



Aviation Notice

REVISION OF NAMCARS/NAMCATS – INSERTIONS / SUBSTITUTIONS OF PART
136:

FREE (CAPTIVE) BALLOONS

CAR No.: NCAA/1/3/4-3

ISSUE DATE: 10 SEPTEMBER 2020

Free Balloon Operators requiring further information should contact:
Senior Manager, Mr. Willy Van Zyl vanzylw@ncaa.com.na or
Cabin Safety Inspector, Hildegard Olivier at olivierhl@ncaa.com.na.



1. LEGAL AUTHORITY

1.1 Pursuant to NAMCARS (2018) in Part 3.04.3 (1) “the Executive Director may, in accordance with sub-regulation (2), issue civil aviation notices regarding any matter which the Executive Director may consider necessary or expedient to publish in order that the objectives of the Act and (the) regulations be achieved”.

1.2 This Aviation Notice serves the purposes of seeking for additional consultations/comments with a view to the issue, respectively, by the Minister of Works and Transport and the Executive Director of Civil Aviation, the regulations and technical standards in terms of the Civil Aviation Act of 2016 (Act No. 6 of 2016, - ie., “the Act”) to ensure regulatory compliance in respect of Free Balloons ito Part 136.

2. INTRODUCTION/BACKGROUND

2.1 By way of Government Notice No. 173 in Government Gazette no. 3865 of 29 June 2007, the then Civil Aviation Regulations Committee published an intention to issue regulations by way of insertion under the NAMCARS, 2001, as Part 136 – Free Balloons. No comments on the draft regulations are on record as having been received.

2.2. By way of Government Notice No. 182 in Government Gazette no. 6096 of 18 August 2016 the then Director of Civil Aviation published and issued technical standards on Part 136 – Free Balloons. Comments received on the technical standards pointed to the lack of regulations and other concerns in the event of its application.

2.3 In terms of the transitional provisions in section 236(2) of the Civil Aviation Act of 2016, any decisions under the repealed law(s) on civil aviation are deemed to have been made ito the Act.

2.4 Noting the concerns of industry also on the lacunae regarding the regulation of free balloons air transport operations in Namibian airspace, and the need to align such with international standards and recommended practices, it was decided to revise and then re-issue for comments the aforesaid regulatory provisions and technical standards for free balloons operations.

3. PURPOSE

This Aviation Notice with the relevant Annexes enables stakeholders the opportunity to comment on the draft provisions anew.

4. APPLICABILITY/ISSUED TO

Any interested person may submit comments on the draft documents as **attached**.

5. EFFECTIVE DATE

The period of validity for the submission of comments in writing, or by way of a duly notified oral request, to the Head of safety, will be 30 days from date of issue.

Issued by:

R. Gärtner
Interim Executive Director of Civil Aviation

10 September 2020

GOVERNMENT NOTICE

MINISTRY OF WORKS AND TRANSPORT

**No.
2020**

**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 Namibian Civil Aviation Authority, I have amended the regulations set out in the Schedule.

**J Mutorwa
MINISTER OF WORKS AND TRANSPORT
September 2020**

Windhoek, 10

SCHEDULE

Definitions

1. In these regulations –

“the regulations” means the Namibian Civil Aviation Regulations Government Notice No. 1 of 2 January 2001 as amended by Government Notices No. 57 of 1 April 2006 and No. 201 of 20 November 2006; Government Notice No. 6763 of 8 November 2018 and Government Notice No. 89 of 2020; and

“Document NAM-CATS-OPS 136” means a document on the Namibia Civil Aviation Technical Standards relating to Free Balloon Operations which is published by the Executive Director in terms of section 227 of the Act;”

Insertion of new Part into the regulations

5. The following Part is inserted after Part 135 of the Schedule to the regulations:

**“PART 136
AIR TRANSPORT OPERATIONS-FREE BALLOONS**

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SUBPART 1

GENERAL

Applicability

136.01.1 (1) This Part shall apply to –

- (a) manned free balloons engaged in commercial air transport operations within Namibia;
- (b) Manned Captive Balloons engaged in commercial air transport operations within Namibia;
- (c) manned free balloons registered in Namibia and engaged in international commercial air transport operations;
- (d) Manned Captive Balloons registered in Namibia and engaged in international commercial air transport operations;
- (c) the issue of air operator certificates for Namibian operators, and matters related thereto;
- (d) persons acting as crew members of manned free balloons registered in Namibia; and
- (e) persons who are on board a manned free balloon operated under this Part.

(2) For the purposes of this Part, a manned (and captive) free balloon registered in another State and operated by the holder of an air operator certificate issued in Namibia, shall be deemed to be registered in Namibia.

Authority of pilot-in-command

136.01.2 All persons on board a manned free balloon shall obey all lawful commands given by the pilot-in-command of the free balloon for the purpose of securing the safety of such manned free balloon and of persons or property carried therein.

Authority of personnel to operate free balloon

136.01.3 No operator or pilot-in-command, as the case may be, of a free balloon, shall permit the operation of or operate, and no person shall operate, a free balloon unless the person at the controls of such free balloon –

- (a) is the holder of a valid free balloon licence issued in terms of Subpart 11 or 12 of Part 61; or
- (b) has received instruction in the operation of free balloon from, and has been declared competent to operate by, the holder of a flight instructor rating or, in the case of a foreign registered free balloon, a person authorised by an appropriate authority;
- (c) is authorised to use the radio apparatus on the free balloon, if any; and
- (d) is conversant with the layout of the approved operations area of the free balloon, 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 operation of the free balloon in that area.

Search and rescue information

136.01.4 The operator or pilot-in-command, as the case may be, of a free balloon, shall ensure that all essential information concerning the search and rescue services in the area over which it is intended that the free balloon will be flown, is available on board such free balloon.

Information on emergency and survival equipment carried

136.01.5 (1) The operator of a free balloon shall have available for immediate communication to rescue co-ordination centres, a list containing information regarding the emergency and survival equipment carried on board the free balloon.

(2) The minimum information to be contained in the list referred to in subregulation (1) shall be as prescribed in Document NAM-CATS-OPS 136.

Method of carriage of persons

136.01.6 No person shall be in any part of a free balloon in 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 free balloon –

(a) for the purpose of taking action necessary for the safety of such free balloon or of any person, animal or goods therein; and

Admission to pilot's compartment

136.01.7 (1) The operator of a free balloon shall ensure that no person is admitted to, or carried on the pilot's compartment of a partitioned basket free balloon, unless such person is –

1. a flight crew member assigned to the flight;
2. an authorised officer, inspector or authorised person; or

(c) permitted by, and carried in accordance with, the instructions contained in the operations manual referred to in regulation 136.06.3.

(2) The final decision regarding the admission of any person to the pilot's compartment shall be the responsibility of the pilot-in-command: Provided that in the case of an authorised officer, inspector or authorised person on an official inspection, such admission shall not be unreasonably withheld.

(3) The admission of any person to the pilot's compartment shall not interfere with the operation of the free balloon.

(4) Any person carried on the pilot's compartment, shall be made familiar with the applicable safety procedures.

Endangering safety

136.01. 9 No person shall, through any act or omission -

- (a) endanger the safety of a free balloon or person therein; or
- (b) cause or permit the free balloon to endanger the safety of any person or property.

Intoxication

136.01.10 (1) The operator of a free balloon shall not permit, and no person shall enter or be in, the free balloon while under the influence of any alcohol or psychoactive substance, to the extent where the safety of such free balloon or its occupants is, or is likely to be, endangered.

(2) The operator shall establish procedures to ensure that any person referred to in subregulation

(a) is refused embarkation; or

(b) if such person is on board, is restrained or disembarked.

Operational Directives

36.01.11 (1) The Executive Director may direct by means of an operational directive that an operation shall be prohibited, limited or subject to certain conditions, in the interests of safe operations.

(2) An operational directive shall state -

(a) the reason for its issue;

(b) its applicability and duration; and

(c) action required to be taken by the operator.

(3) Operational directives issued in terms of subregulation (1) are supplementary to the provisions of Part.

(4) The operator shall ensure that all operational directives are brought to the attention of personnel engaged, employed or contracted by the operator in his or her operations.

Power to inspect

136.01.12 An operator shall ensure that any person authorised by the Executive Director is permitted at any time to board and fly in any free balloon operated in accordance with an air operator certificate issued by the Executive Director and to enter and remain on the pilot's compartment provided that the commander may refuse access to the pilot's compartment if, in his or her opinion, the safety of the free balloon would thereby be endangered.

Definitions in this Part

136.01.13 For the purposes of this Part, unless the context indicates otherwise –

“operations area” means any area or proposed area of operation for free balloons which has been approved by the Director; and

“operations base” in relation to an operator's free balloon operations means the place or site which serves as that operator's administrative and operational base and where information required to be kept in terms of this Part is kept; and

“operations site” in relation to free balloon flight operations means any launching or landing site which is used or intended to be used for free balloon or proposed free balloon operations pursuant to this Part.

SUBPART 2

AIR OPERATOR CERTIFICATE

Requirement for air operator certificate

136.02.1 (1) No person or organisation shall operate a free balloon for commercial air transport purposes in Namibia and no Namibian operator shall operate a free balloon for commercial air transport purposes except under the authority of, and in accordance with the conditions of, an air operator certificate issued under this Subpart.

Application for issue or amendment of air operator certificate

136.02.2. (1) An application for the issue of an air operator certificate, or any amendment thereof, shall be -

(a) made to the Executive Director in the appropriate form as prescribed in Document NAM-CATS-OPS 136; and

(b) accompanied by -

(i) the appropriate fee prescribed in Part 187;

(ii) the operations manual referred to in regulation 136.06.3;

(iii) a valid air service licence issued under the Air Services Act, 1949 (Act No. 51 of 1949);

(iv) proof that the applicant is financially capable of conducting the type of operation, and the maintenance of the type of the free balloon, covered by the application;

(v) in respect of the operator's maintenance system, and for each type of free balloon to be operated -

(aa) the maintenance management manual referred to in regulation 136.09.6;

(bb) the operator's free balloon maintenance programme referred to in regulation 136.09.5;

(cc) the free balloon technical log referred to in regulation 136.09.7;

(dd) the technical specifications of the maintenance contract between the applicant and a free balloon maintenance organisation approved in terms of Part 145, if applicable;

(vi) the operator's safety management system manual referred to in regulation 136.03.9;

(vii) an indication of the number of free balloons to be used in the operation; and

(viii) a detailed map showing the proposed operations area.

(2) An application for the issue of an air operator certificate, shall be submitted to the Executive Director at least 90 days before the date of commencement of the intended operation.

(3) An application for the amendment of an air operator certificate, shall be submitted to the Executive Director at least 30 days before the date of commencement of the intended amendment.

(4) An applicant for the issue of an air operator 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 any application made in terms of this regulation.

Assessment of application and issue of air operating certificate

136.02.3 (1) In considering an application for the issue of an air operator certificate, or an amendment thereof, the Executive Director may conduct any investigation he or she deems necessary.

(2) An applicant will not be granted an air operator certificate unless:

(a) the free balloons operated have valid certificates of airworthiness issued in terms of Part 21, or in the case of a foreign registered free balloon the foreign certificate of airworthiness has been validated in terms of Part 21;

(b) the maintenance system referred in regulation Subpart 9 has been approved by the Executive Director;

(c) the applicant has satisfied the Executive Director that he or she has the ability to -

(i) establish and maintain an adequate organisation referred to in Subpart 3;

(ii) establish and maintain the quality system referred to in regulation 136.03.7;

(iii) comply with training programmes required in terms of Subpart 5;

(iv) comply with maintenance requirements, consistent with the nature and extent of the operations specified;

(d) the applicant has the financial capability to conduct the operation; and

(e) the Executive Director is satisfied that the applicant will not conduct the operation concerned contrary to any provision of the Act or the Civil Aviation Offences Act, 1972 (Act No. 10 of 1972) or any other law.

(3) An air operator certificate shall be issued on the appropriate form as prescribed in Document NAM-CATS-OPS 136, under such conditions which the Executive Director may determine.

(4) An air operator certificate shall specify -

(a) the name and principal place of business of the operator;

(b) the date on which the certificate was issued and its period of validity;

(c) a description of the type of operation authorised;

(d) the type of free balloons authorised for operation;

(e) the nationality and registration marks of each free balloon authorised for operation;

(f) the approved operations area; and

(g) the conditions of the certificate.

Period of Validity

136.02.4 (1) An air operator certificate shall be valid for the period determined or authorised by the Director, which period shall not exceed 12 months, calculated from the date of issue or renewal thereof.

(2) The certificate shall remain in force until it expires or is varied, suspended or cancelled by the Executive Director in terms of regulation 136.02.10.

(3) The holder of a certificate which expires, shall as soon as is reasonably practicable, surrender the certificate to the Executive Director.

(4) The holder of a certificate which is varied or suspended, shall forthwith produce the certificate upon variation or suspension thereof, to the Executive Director for the appropriate endorsement.

(5) The holder of a certificate which is cancelled, shall within 30 days from the date on which the certificate is cancelled, surrender such certificate to the Director.

Renewal of air operator certificate

136.02.5 (1) The holder of an air operator certificate shall at least 30 days immediately before the date on which the certificate expires, apply for the renewal of such certificate.

(2) The provisions of regulations 136.02.2 and 136.02.3 shall, subject to necessary changes required by context, apply to an application for renewal of a certificate made in terms of this regulation.

Duties of holder of air operator certificate

136.02.6 The holder of an air operator certificate shall -

(a) engage, employ or contract -

(i) adequate flight crew for the type of operation authorised, who are trained and checked in accordance with the provisions of Subpart 3;

(ii) adequate ground personnel for the nature and scale of the type of operation authorised, who have a thorough understanding of their responsibilities within the organisation of the operator;

(iii) adequate supervisors for the structure of the operator and the number of personnel engaged, employed or contracted, who possess experience and personal qualities sufficient to ensure the attainment of the standards specified in its approved operations manual;

(b) ensure that-

(i) each flight is conducted in accordance with the approved operations manual;

(ii) the type of free balloon authorised for use, is equipped, and its crew qualified, as required for the area and type of operation authorised;

(iii) arrange appropriate ground handling facilities to ensure the safe handling of its flights;

(iv) if the provision of certain of its services is contracted to another organisation, retain responsibility for the maintenance of the standards for such services, specified in its approved operations manual;

(v) maintain operational support facilities at the main operating base, appropriate for the area and type of operation authorized; and

(vi) maintain each free balloon in accordance with the requirements of subpart 9.

Display of air operator certificate

136.02.7 The holder of an operator certificate shall display the certificate in a prominent place, generally accessible to the public at such holder's principal place of business and, if a copy of the certificate is displayed, shall produce the original certificate to an authorised officer, inspector or authorised person if so requested by such officer, inspector or person.

Advertisements

136.02.8 Any advertisement by an organisation indicating that it is the operator of a free balloon, shall reflect the number of the air operator certificate issued by the Executive Director.

Transfer of air operator certificate

136.02.9 (1) Subject to the provisions of subregulation (2), an air operator certificate shall not be transferable.

(2) A change in ownership of the holder of a certificate shall be deemed to be a change of significance referred to in regulation 136.03.8.

Variation, Suspension and Revocation of Certificate

136.02.10 (1) Subject to subregulations (3) and (4), the Executive Director may by written notice to the holder of an air operator certificate vary, suspend or cancel an air operator certificate if the Executive Director is satisfied that -

- (a) the operator can no longer maintain an adequate organisation to ensure safe operations;
- (b) fails to comply with any condition of the certificate;
- (c) fails to comply with the Act or these regulations;
- (d) is convicted of an offence in terms of the Act or these regulations; or
- (e) the variation, suspension or cancellation is necessary in the interests of aviation safety.

(2) The notice referred to in subregulation (1) shall -

- (a) specify the reasons why the certificate is being varied, suspended or cancelled;
- (b) request the holder to rectify the defect within the period specified in the notice;
- (c) invite the holder to make any representations he or she may wish to make in relation to the variation, suspension or cancellation to the Executive Director within the period specified in the notice; and

(d) be delivered to the holder by the quickest possible means available to the Director.

(3) If the holder makes representations to Executive Director as requested the Executive Director shall consider the representations and may confirm or revoke the variation,

suspension or cancellation and advise the holder within the shortest possible time after receiving the representations.

(4) If the holder fails to comply with a notice issued in terms of subregulation (1) within the specified period the Executive Director shall confirm the variation, suspension or cancellation and inform the holder in writing of the decision and the holder's right to appeal against the decision.

(5) The Executive Director may disregard the procedures set out in subregulations (1) to (3) in circumstances where the immediate variation, suspension or cancellation of the certificate is necessary to prevent serious harm, injury or damage to any person or property or is in the interest of aviation safety in general.

(6) A person who is aggrieved by decision made by the Executive Director in terms of this regulation may appeal against that decision to the High Court of Namibia.

(7) An appeal in terms of subregulation (6) shall be made in the same manner and within the same periods that appeals in civil matters are made in cases arising from the magistrate's courts established by the Magistrates Courts Act, 1944 (Act No of 1944).

(8) An appeal in terms of subregulation (6) shall not suspend the operation of a decision of Executive Director made in terms of this regulation unless the High Court determines otherwise.

(9) Regardless of subregulation (6), the Executive Director may revoke or vary a decision made in terms of this regulation if the Executive Director is satisfied that the reason for the initial decision no longer exists and that the continuation of operations will not endanger aviation safety.

Loss of air operator certificate

136.02.11 If an air operator certificate is lost, mutilated or destroyed, the operator shall within five days of such loss, mutilation or destruction notify the Executive Director in writing and may at the same time apply for issue of a duplicate certificate which the Executive Director shall issue subject to payment of the fee set out in Part 187.

Register of certificates

136.02.12 (1) The Executive Director shall maintain a register of all air operator certificates issued, amended or renewed in terms of the regulations in this Subpart.

(2) The register shall contain the following particulars:

- (a) the full name of the holder of the certificate;
- (b) the postal address of the holder of the certificate;
- (c) the telephone and telefax number of the holder of the certificate;
- (d) the date on which the certificate was issued, amended or renewed;
- (e) the number of the certificate issued, amended or renewed;
- (f) the conditions of the certificate;
- (g) the nationality of the holder of the certificate; and
- (h) the date on which the certificate was cancelled, if applicable.

(3) The particulars referred to in sub regulation (2) shall be recorded by the Executive Director in the register within seven days from the date on which the certificate was issued, amended, renewed or cancelled, as the case may be.

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

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

Dry lease of free balloon

136.02.13 (1) A Namibian operator who intends to dry lease a foreign registered free balloon for operation under this Part, shall –

(a) ensure that the free balloon can be operated and is operated in accordance with the requirements prescribed in this Part; and

(b) obtain prior approval from the Executive Director to operate such free balloon.

(2) The approval referred to in subregulation (1)(b) shall, subject to such condition as the Executive Director may determine, be granted if such free balloon is –

(a) type certificated in accordance with the requirements prescribed in Part 21;

(b) maintained in accordance with the operator's maintenance system referred to in regulation 136 09.2;

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

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

(4) Subject to the provisions of subregulation (5), the operator of a Namibian registered free balloon may dry lease the free balloon to any operator of another contracting State to the Convention.

(5) On request of the operator of a Namibian registered free balloon, the Executive Director may, subject to subregulation (6), remove the free balloon from the air operator certificate held by such operator.

(6) The Executive Director may affect a removal referred to in subregulation (5) if -

(a) the appropriate authority of the state of the operator has accepted in, writing, the responsibility for the surveillance of the maintenance and operation of such free balloon; and

(b) such free balloon is maintained according to an approved operator's maintenance system.

Wet lease of free balloon

136. 02.14 (1) A Namibian operator who intends to wet lease a foreign registered free balloon for operations under this Part, shall obtain prior approval from the Executive Director to operate such free balloon.

(2) The approval referred to in subregulation (1) shall, subject to such conditions as the Executive Director may determine, be granted if such free balloon –

(a) is wet leased from an operator who is the holder of an air operator certificate or equivalent authorisation issued by an appropriate authority;

(b) has been type certificated by the appropriate authority;

(c) holds a valid certificate of airworthiness or similar document issued by such appropriate authority;

(d) is maintained and operated in accordance with safety standards prescribed in this Part; and

(e) will be operated in terms of the air operator certificate held by the operator referred to in subregulation (1).

(3) The operator referred to in subregulation (1) shall -

(a) satisfy the Executive Director that the safety standards of the lessor are not less than the safety standards prescribed in this Part;

(b) ensure that any law applicable to the maintenance and operation of the free balloon to be wet leased, is complied with.

(4) The operator of a Namibian registered free balloon who intends to wet lease the free balloon to any operator, other than an operator of another contracting state to the Convention, shall remain the operator of the free balloon for the purposes of this Subpart, and the responsibility for the surveillance of the maintenance and operation of such free balloon shall not be transferred to the appropriate authority of the State of the operator.

Leasing of free balloon between two Namibian operators

136.02.15 (1) A Namibian operator who intends to lease a free balloon and complete crew from another Namibian operator, shall become the operator of the free balloon and shall assume the functions and responsibilities prescribed in this Subpart.

(2) A Namibian operator intending to utilise a free balloon leased from, or to lease it to, another Namibian operator shall obtain prior approval from the Executive Director for the operation, and the conditions of approval shall be part of the lease agreement between the operators.

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

(a) the arrangement concerning the air operator certificate under which the flights with the leased free balloon shall be operated; and

(b) any deviation from the air operator certificate under which the flights with the leased free balloon shall be operated.

Subchartering

136.02.16 (1) In the exceptional circumstances as prescribed in Document NAM-CATS-OPS 136, an operator may subcharter a free balloon and crew from any operator who

holds a valid air operator certificate, or similar document, for the free balloon, issued by an appropriate authority; Provided that –

(a) the sub charter period does not exceed five consecutive days; and

(b) the operator of the free balloon so sub chartered, informs the Executive Director, within 24 hours, of such sub charter.

(2) The provisions of regulation 136.02.13, 136.02.14 and 136.02.15 shall subject to necessary changes required by context, apply to any sub charter referred to in this regulation.

SUBPART 3

ORGANISATION AND GENERAL DUTIES OF CERTIFICATE HOLDER

Management and executive staff

136.03.1 (1) The operator shall establish an effective management structure consisting of suitably experienced and competent personnel whose duties and responsibilities shall be clearly defined in writing.

(2) The positions of key personnel including that of the senior person identified as the senior accountable manager and compliance officer of the operator concerned, to whom contractual authority has been granted to ensure that all activities undertaken by the operator are carried out in accordance with the applicable requirements prescribed in this Subpart shall be listed in the operations manual for approval by the Executive Director.

(3) The accountable manager referred to in subregulation (2) shall, in addition to any other powers or duties imposed on him or her, be vested with the following powers and duties in respect of the compliance with such requirements:

(a) unrestricted access to work performed or activities undertaken by all other persons as employees of, and other persons rendering services under contract with the operator;

(b) full rights of consultation with any such person in respect of such compliance by him or her;

(c) power to order cessation of any activity where such compliance is not affected;

(d) duty to establish liaison mechanisms with the Executive Director with a view to ascertain correct manners of compliance with the said requirements, and interpretations of such requirements by the Executive Director and the operator concerned; and

(e) powers to report directly to the management of the operator on his or her investigations and consultations generally, and in cases contemplated in subregulation (3)(c), and with regard to the results of the liaison contemplated in subregulation (3) (d).

Adequacy and supervision of staff

136.03.2 (1) The operator shall engage, employ or contract competent persons who are responsible for -

(a) quality assurance, and who have direct access to the accountable manager and compliance officer referred to in regulation 136.03.1 on matters affecting airworthiness, free balloon maintenance and aviation safety;

(b) flight operations;

(c) the maintenance system;

(d) crew training; and

(e) ground operations.

who shall be approved in writing by the Executive Director.

(2) The operator shall engage, employ or contract competent persons who are responsible for the planning, performance, supervision and inspection of the type of operation and the maintenance of the type of free balloons operated by the operator.

(3) Depending on the nature and size of the operator's operation arrangements shall be made for the appointment of a chief pilot who shall be responsible for the training and supervision of the operator's pilots to ensure the maintenance of high professional standards.

(4) The applicant shall establish a procedure for initially assessing, and a procedure for maintaining, the competency of those personnel involved in planning, performing or supervising the type of operation, and the maintenance of the type of free balloon, covered by the certificate.

Office facilities and accommodation

136.03.3 The operator shall ensure that -

(a) working space available at each operations base is sufficient for personnel pertaining to the safety of flight operations, taking into account the needs of ground personnel, personnel concerned with operational control the storage and display of essential records and flight planning by crew;

(b) office services are capable, without delay, of distributing operational instructions and other information to all concerned; and

(c) suitable office accommodation is available at appropriate locations for the personnel referred to in regulation 136.03.2(1).

Operations balloons library

136.03.4 (1) The operator shall, at the operations base, keep and maintain in an orderly manner, an adequate library of maps, charts, flight guides, operations manuals and other documents and information to be used by personnel at the operations base and in flight operations.

(2) Any amendments made to the documents or information referred to in subregulation (1) shall be timeously made in the records and brought to the notice of pilots and other operating staff.

Balloons library

136.03.5 The operator shall ensure that each free balloon used in his or her operations is equipped with an adequate supply of manuals, maps and flight guides and other necessary documents to be used for operations and supported by an efficient amendment service.

Quality assurance system

136.03.7 (1) An operator shall establish one quality assurance system and designate one quality manager to monitor compliance with, and the adequacy of, procedures required to ensure safe operational practices and airworthy free balloons. Compliance monitoring must include a feed-back system to the accountable manager to ensure corrective action as necessary.

(2) The quality assurance system must include a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with all applicable requirements, standard and procedures.

(3) The quality assurance system and the quality manager must be approved to the Director.

(4) The minimum standards for a quality assurance system shall be as prescribed in Document NAM-CATS-OPS 136.

Changes in quality management system

136.03.8 (1) If the holder of an air operator certificate desires to make any change in the quality assurance system referred to in regulation 136.03.7 which is significant to the showing of compliance with the appropriate requirements prescribed in this Part, including -

(a) any particulars on the certificate

(b) the identity of the accountable manager and compliance officer;

(c) the identities of the persons referred to in regulation 136.03.1 or 136.03.2;
and

(d) the conditions of the certificate, such holder shall apply to the Executive Director for the approval of such change.

(2) The provisions of regulation 136.02. 2 and 136.02.3 shall, subject to necessary changes required by the context, apply to an application for the approval of a change in the quality assurance system.

(3) An application for the approval of a change in the quality assurance system shall be granted by the Executive Director if the applicant satisfies the Director, upon submission

of appropriate proposed changes to its operations manual, that it will continue to comply with the provisions of regulations 136.03.1 to 136.03.7 inclusive after the implementation of such approved change.

Safety management

136.03.9 (1) The operator shall establish a safety management system which shall enable both the operator and the Executive Director to assess the operator's approach to safety and the risk to which his or her operation is open to.

(2) An operator's safety management system shall be incorporated into and become part of the operator's operations manual if approved by the Executive Director.

(3) The Guidelines for safety management systems for free balloon operators as established in NAMCARS 140 shall be complied with.

Safety Inspection and Audits

136.03.10 (1) The holder of an air operator certificate shall 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 prescribed in this Part.

Preservation of documents

136.03.11 The operator of a free balloon, who is required to retain any of the documents for the specified period referred to in Subpart 6, shall retain such documents for such specified period irrespective of the fact that such operator, before the expiry of such specified period, ceases to be the operator of the free balloon concerned.

Occurrence reporting

136.03.12 (1) If a flight incident occurs -

(a) the operator or pilot-in-command of a free balloon shall submit a report to the Executive Director of any incident that has endangered or may have endangered safe operation of the flight; and

(b) the report shall be dispatched within 72 hours of the event, unless exceptional circumstances prevent this.

(2) The pilot-in-command of a free balloon shall ensure that all technical defects and exceedance of technical limitations occurring while he or she was responsible for the flight are recorded in the free balloon's technical log.

(3) The pilot-in-command of a free balloon shall submit an air traffic incident report in accordance with ICAO PANS RAC whenever a free balloon in flight has been endangered by -

(a) a near collision with any other flying device;

(b) faulty air traffic procedures or lack of compliance with applicable procedures by air traffic services or by the flight crew; or

(c) a failure of air traffic services facilities.

(5) If an in-flight emergency occurs and the situation permits, the pilot-in-command of a free balloon shall inform the appropriate air traffic services unit of any dangerous goods on board.

(6) Following an act of unlawful interference on board a free balloon, the pilot-in-command of a free balloon shall submit a report, as soon as practicable, to the Director.

(7) The pilot-in-command of a free balloon shall notify the appropriate ground station as soon as practicable whenever a potentially hazardous condition such as -

(a) an irregularity in a ground or navigational facility;

(b) a meteorological phenomenon;

(c) a volcanic ash cloud; or

(d) a high radiation level is encountered during flight.

Accident reporting

136.03.13 An operator shall establish procedures to ensure that the nearest appropriate authority is notified by the quickest available means of any accident, involving a free balloon, resulting in serious injury (as defined in the Regulations Regarding the Investigation of Aircraft Accidents, 2000), or death of any person or substantial damage to the free balloon or property.

Statistical information

136.03.14 The holder of an air operator certificate shall furnish the Executive Director with the statistical information, within the appropriate period, as prescribed in Document NAM-CATS-OPS 136.

Documentation

136.04.15 The holder of an air operator certificate shall make the necessary arrangements for the production of manuals amendments and other documents.

SUBPART 4

CREW MEMBERS

Composition of crew

136.04.1 (1) The minimum number and composition of the crew shall not be less than the minimum number and composition specified in the free balloon flight manual referred to in regulation 136.06.5.

(2) If the crew consists of more than one pilot the operator shall designate one pilot among the flight crew as pilot-in-command of the free balloon who may delegate the conduct of the flight to another suitably qualified pilot.

(3) The operator of a free balloon shall allocate additional crew members when it is required by the type of operation, and the number of such additional crew members shall not be less than the number specified in the operations manual referred to in regulation 136.06.3.

(4) The operator shall ensure that the crew members -

(a) are competent to perform the duties assigned to them; and

(5) Any flight crew member operating the radio installation in the free balloon shall be the holder of a valid radiotelephony operator certificate or similar document, authorising such member to operate the type of radio transmitting equipment to be used.

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

Crew member responsibilities

136.04.2 (1) No person shall act as a crew member of a free balloon -

(a) while under the influence of any psychoactive substance;

- (b) within 24 hours, following scuba diving by such crew member;
 - (c) within 48 hours, following blood donation by such 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 free balloon or its occupants; or
 - (d) if the crew member is in any doubt of being able to accomplish his or her assigned duties on board such free balloon.
- (2) No crew member shall -
- (a) engage in any kind of problematic use of substances;
 - (b) use any alcohol or psychoactive substance less than eight hours prior to commencing standby for flight duty or flight, which flight duty shall be deemed to commence at the specified reporting time, if applicable;
 - (c) commence flight duty with a blood alcohol level exceeding 0,02 gram per 100 milliliters; or
 - (d) use any alcohol or psychoactive substance during flight duty or whilst on standby, or within eight hours after an accident or incident involving the free balloon, unless the accident or incident was not related to his or her duties.
- (3) No person shall act as a flight crew member of a free balloon if, prior to each flight, the planned flight time exceeds, or is likely to exceed, the permissible flight time and duty period as specified in the flight time and duty scheme referred to in regulation 136.04.7.
- (4) If a flight crew member expects his or her cumulative flight hours projected for a particular operation, to exceed the appropriate limit specified in such flight time and duty scheme, the flight crew member shall inform the operator accordingly.

Crew member emergency duties

136.04.3 (1) The operator and, where appropriate, the pilot-in-command of a free balloon shall assign to each crew member concerned, the necessary functions to be performed in an emergency or a situation requiring emergency evacuation.

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

Laws, regulations and procedures

136.04.4 (1) In an emergency situation which endangers a free balloon, crew members or passengers, the pilot-in-command may, in the interests of aviation safety –

(a) take any action which he or she considers necessary under the circumstances; and

(b) deviate from any law, regulation and operational procedure.

(2) If a pilot-in-command deviates from any law, regulation or operational procedure in an emergency referred to in subregulation (1), he or she shall forthwith notify the Executive Director of such deviation. within 72 hours.

(3) If the Executive Director requests the pilot-in-command to submit a report on such deviation, the pilot-in-command shall submit the report to the Executive Director within the period specified by the Director.

Duties of pilot-in-command regarding flight preparation

136.04.5 (1) The pilot-in-command of a free balloon shall not commence a flight unless he or she is satisfied that -

- (a) the free balloon is airworthy;
- (b) the instruments and equipment required for the particular type of operation to be undertaken, are installed and are serviceable,
- (c) the free balloon has been released to service in accordance with the provisions of Part 43;
- (d) The balloon shall be loaded according to the load chart specified in the balloon flight manual and shall be within the limitations of the Maximum Take Off Mass as well as the Minimum Landing Mass as prescribed in the flight manual of such balloon”.
- (e) the load carried by the free balloon is properly secured, fit to be conveyed in accordance with the provisions of Part 92 and is so distributed that the load limits are within the limits prescribed in such free balloon flight manual;
- (f) all the document and forms required to be carried on board, current maps, charts and associated documents, are carried;
- (g) the search and rescue information, referred to in regulation 136.01.4, is available on board;
- (h) the requirements in respect of fuel and minimum safe altitudes, operating area minima and availability of alternate landing sites, are complied with;
- (i) the status of the free balloon and the relevant airborne systems are appropriate for the specific flight to be undertaken;
- (k) according to the information available to him or her, the weather at the launching site concerned and the physical condition of the launching site within the route or perimeter to be flown)
- (L) the fuel required is sufficient for duration of the planned flight and sufficient contingencies are calculated for the planned flight
- (m) The type of fuels needed for different applications in various parts of the flight have been considered and are available and sufficient for the required planned flight.
- (n) that the balloon is equipped with the appropriate and sufficient emergency equipment such as oxygen / life jackets / emergency blankets as may be necessary for the planned flight.

Duties of pilot-in-command regarding flight operations

136.04.6 (1) The pilot-in-command of a free balloon shall be responsible for -

- (a) the operation and safety of the free balloon;

(b) the conduct and safety of crew members and passengers carried; and

(c) the maintenance of discipline by all persons on board.

(2) The pilot-in-command shall have the authority -

(a) to give such commands he or she deems necessary in the interest of the safety of the free balloon, persons or property; and

(b) to restrain any person, using only reasonable or sufficient force, if necessary, or disembark any person or cargo which in his or her opinion, represents a potential hazard to the safety of the free balloon, persons or property.

(3) The pilot-in-command shall -

(a) ensure that the pre-flight inspection has been carried out, and that the checklists, and where applicable, the pilot's compartment procedures and other instructions regarding the operation of the free balloon, the limitations contained in the free balloon flight manual referred to in regulation 136.06.5, or equivalent certification document, are fully complied with at appropriate times during a flight;

(b) decide whether or not to accept a free balloon with unserviceability allowed by flight manual

(c) before take-off, ensure that the passengers are briefed on the location and general manner of use of the relevant emergency equipment carried for collective or individual use and, when an emergency arises, instruct the passengers to take such emergency action as may be appropriate;

(d) ensure that during take-off and landing and whenever, by reason of turbulence or any emergency occurring during a flight, the precaution is considered necessary, all persons on board the free balloon are in a safe position and/or secured in their compartment by means of restraint harnesses if available in the free balloon;

(e) report any accident or incident involving the free balloon in accordance with the provisions of the Regulations Regarding the Investigation of Aircraft Accidents, 2000;

(f) report any dangerous goods accident or incident involving the free balloon in accordance with the provisions of Part 92;

(g) if the free balloon 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 crew member, or a failure of air traffic service facilities, submit an air traffic service incident report in accordance with the Regulations Regarding the Investigation of Aircraft Accidents, 2000;

(h) record any technical defect and the exceeding of any technical limitation which occurred while he or she was responsible for the flight, in the flight folio; and

(i) 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.

(4) The pilot-in-command shall ensure that -

(a) oxygen is available to crew members and passengers if flights in a non-pressurised free balloon are contemplated above 10 000 feet up to 12 000 feet in excess of 60 minutes, or above 12 000 feet; and

(b) oxygen is carried in sufficient quantities for all flights at such altitude where a lack of oxygen might result in impairment of faculties of crew members, or harmfully affect passengers.

(5) The pilot-in-command shall 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 free balloon;

(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) continue a flight beyond the nearest suitable landing site, in the event of a crew member becoming unable to perform any essential duties as a result of fatigue, sickness, lack of oxygen or any other reason; and

(6) The pilot-in-command or, in his or her absence, the operator of the free balloon, shall report any act of unlawful interference with the operation of such free balloon, or the authority of the pilot-in-command -

(a) if the act unlawful interference occurs within Namibia; or

(b) if the act of unlawful interference occurs in a Namibian registered free balloon within or over the territory of a foreign State, to the Director.

Flight time and duty scheme

136.04.7 (1) The operator of a free balloon shall -

(a) establish a scheme for the regulation of flight time and duty periods for each crew member;

(b) include the scheme in the operations manual referred to in regulation 136.06.3;

(c) ensure that each crew member complies with the provisions of such scheme;

(d) not cause or permit any crew member to be on flight duty in the free balloon if such operator knows or has been made aware than such crew member -

(i) will NOT exceed the flight time and duty periods referred to in subregulation (1)(a) while on flight duty; or

(ii) is suffering from or, having regard to the circumstances of the flight to be undertaken, is likely to suffer from fatigue which may endanger the safety of the free balloon or its crew members and passengers; and

(e) not schedule a crew member for active flight duty for a period exceeding eight consecutive hours during any given flight time and duty period unless authorised in the scheme referred to in paragraph (a).

(2) The provisions to be included in a flight time and duty scheme referred to in subregulation (1), shall be as prescribed in Document NAM-CATS-OPS 136.

SUBPART 5

FLIGHT CREW TRAINING AND TESTING

Training of Pilot in Command

136.05.1 (1) The operator shall establish and maintain a ground and flight training programme for use by crew members of such operator and such programme shall be contained in the operator's training manual based on the information prescribed under subregulation (3).

(2) An operator's training manual may be incorporated into and become part of the operator's operations manual if approved by the Executive Director.

(3) The Executive Director shall prescribe the appropriate training programmes and syllabi for PIC of free balloons in Document NAM-CATS-OPS 136.

(4) The operator shall ensure that -

(a) the PIC receives training in accordance with the training manual referred to in subregulation (1);

(b) the training shall only be provided by an aviation training organisation approved, by the Director; and or a certified instructor approved by the Executive Director

(c) the PIC passes a written examination about all the subjects of the training syllabi prescribed in subregulation (3).

(5) The provisions of this Subpart shall apply in respect of full-time and part-time employed crew members.

Initial training of PIC

136.05.2 The PIC employed by the operator of a free balloon shall have successfully completed the initial training and appropriate skill test as prescribed in Part 61.

Conversion training

136.05.3 (1) The operator of a free balloon shall ensure that -

(a) a flight crew member completes the operator's type conversion course before commencing unsupervised flying

(i) when changing to a free balloon for which a new type rating is required; or

(ii) unless already rated for such type

(b) type conversion training is conducted by a competent person in accordance with the detailed course syllabus included in the operations manual referred to in regulation 136.06.3, and as prescribed in Document NAM-CATSOPS 136;

(d) the amount of training required by the operator's type conversion course is determined after due note has been taken of the PIC previous training as recorded in the training records referred to in regulation 136.06.8;

(e) the minimum standards of qualification and experience required of PIC before undertaking type conversion training are specified in the operations manual;

(f) each PIC undergoes the checks referred to in regulation 136.05.5(2) and the training and checks referred to in regulation 136.05.5(6) before commencing line flying under supervision;

(g) upon completion of line flying under supervision the check referred to in regulation 136.05.5(4) is undertaken; and

(h) crew resource management training (where and if necessary) as prescribed in Document NAM-CATSOPS 136, is included in the conversion course.

(2) In the case of changing from one type of free balloon to another the check referred to in regulation 136.05.5(2) may be combined with the type rating course prescribed in Part 61.

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

(4) The operator's type conversion course shall include the items, and shall be conducted in the order, as prescribed in Document NAM-CATS-OPS 136.

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

Differences training and familiarisation training

136.05.4 (1) The operator of a free balloon shall ensure that a PIC completes difference training when -

(a) operating a variant of the type of free balloon currently operated; or

(b) a change of equipment or procedures on types or variants currently operated, requires the acquisition of additional knowledge and

(2) The operator shall ensure that a PIC completes familiarisation training when -

(a) operating another free balloon of the same type or variant; or

(b) a change of equipment or procedures on types or variants currently operated, requires the acquisition of additional knowledge.

(3) The operator shall specify in the operations manual referred to in regulation 136.06.3, when differences training or familiarisation training is required.

Recurrent training and checking

136.05.5 (1) The operator of a free balloon shall ensure that -

(a) each the PIC undergoes recurrent training and checking and that all such training and checking is relevant to the operation and the type or variant of free balloon for which the PIC is licensed and rated;

(b) a recurrent training and checking programme is included in the operations manual referred to in regulation 136.06.3;

(c) recurrent training is conducted by -

- (i) a competent person, in the case of ground and refresher training;
 - (ii) competent personnel, in the case of emergency and safety equipment training and checking; and
 - (iii) competent personnel, in the case of crew resource management training;
- (d) recurrent checking is conducted by-
- (i) a designated examiner, in the case of operator proficiency checks; and
 - (ii) an appropriately type rated flight instructor qualified as pilot-in-command, designated by the operator, in the case of flight checks; and
- (e) each PIC undergoes such proficiency checks once every 12 months is sufficient should the pilot remain current on the basis of 3 take -offs and 3 landings are done within a 90 days period.
- (2) The operator shall ensure that, in the case of the operator proficiency checks referred to in subregulation (1)(e) -
- (a) each PIC undergoes such checks to demonstrate his or her competency in carrying out normal, abnormal and emergency procedures; and
 - (3) Upon successful completion of each operator proficiency check referred to in subregulation (1)(e), the operator shall issue a certificate of competency to the PIC concerned, which certificate shall be valid for a period of six calendar months calculated from the date on which such certificate as issued.
 - (4) The operator shall ensure that, in the case of a flight check, each flight crew member undergoes the check in the free balloon to demonstrate his or her competency in carrying out normal line operations specified in the operations manual referred to in regulation 136.06.3.
 - (5) Upon successful completion of a flight check referred to in subregulation (4), the operator shall issue a certificate of competency to the flight crew member concerned, which certificate shall be valid for a period of 12 calendar months calculated from the date on which such certificate was issued.
 - (6) The operator shall ensure that, in the case of emergency and safety equipment Training and checking, each flight crew member undergoes training and checking on the location and use of all emergency and safety equipment carried.
 - (7) Upon successful completion of the emergency and safety equipment check referred to in subregulation (6), the operator shall issue a certificate of competency to the flight crew member concerned which certificate shall be valid for a period of 12 calendar months calculated from the date on which such certificate was issued
 - (8) The operator shall ensure that, in the case of crew resource management training if necessary, each flight crew member undergoes such training as part of the recurrent training.
 - 9) The operator shall ensure that, in the case of ground and refresher training, each flight crew member undergoes such training every 12 calendar months.

(10) The operator's recurrent training and checking programme shall include the items, and shall be conducted in the order, as prescribed in Document NAM-CATSOPS 136.

SUBPART 6

DOCUMENTS AND RECORDS

Documents to be carried on board

136.06.1 The operator or pilot-in-command, as the case may be, of free balloon, shall ensure that the following documents, or certified true copies thereof, are carried on board the free balloon on each individual flight:

- (a) the certificate of registration;
- (b) the certificate of airworthiness;
- (c) the appropriate licenses, ratings and medical certificate of each crew member;
- (d) the journey logbook or general declaration;
- (e) if passengers are carried, the passenger manifest, unless the information is included in the general declaration referred to in the paragraph
- (d) the free balloon flight manual referred to in regulation 136.06 5, or
- (e) the load calculations, referred to in regulation 136.08.7(9); should be available in the ground retrieval vehicle
- (f) the technical log, or similar document and copy of all the above and below documents should be kept in the ground retrieval vehicle as well (in the case of a balloon accident, all these documents must be made available on the ground for further investigations to take place
- (g) proof of insurance liability required under regulation should be kept at base of operations, unless for a cross-border flight) 136 10.1;
- (h) the air operator certificate; kept at base of operations, unless for a cross-border flight)
- (i) those parts of the operation manual which are required for the conduct of a flight, and which must be accessible to the crew during flight; and
- (j) appropriate meteorological information.
- (k) if flying in controlled airspace, the relevant aeronautical charts necessary for the route to be flown

Documents to be retained on ground

136.06.2 (1) The operator of a free balloon shall ensure that, at least for the duration of each flight or series of flights -

- (a) information relevant to the flight or series of flights, and appropriate to the type of operation, is preserved on the ground and is retained until it has been duplicated at the place at which it will be stored in accordance with regulation 136.03.11; or

(b) if the preservation and retention of such information contemplated in paragraph (a) is not practicable, such information is carried in a fireproof container in the free balloon.

(2) The information referred to in subregulation (1) shall include -

(a) copies of relevant parts of the technical log;

(b) the mass and balance documentation referred to in regulation 136.08.7(9); and

(c) the special loads notification, if applicable.

Operations manual

136.06.3 (1) The operator of a free balloon shall draw up an operations manual containing all information required under this Part and setting out the manner in which such operator will operate the commercial air transport operation to be authorised by the air operator certificate.

(2) If the Executive Director is satisfied that -

(a) the operations manual complies with the provision of subregulation (7);

(b) the operator will comply with the provision of regulation 136.02.6; and

(c) the operator will not operate the commercial air transport operation concerned contrary to any provision of any law, the Executive Director shall certify in writing on such operations manual that it has been approved and shall return the approved operations manual to the operator.

(3) In the case of an amendment to the operations manual, if the Executive Director is satisfied that the amendment and the operator comply with the provisions of subregulation (2), the Executive Director shall certify in writing on such amendment that it has been approved, and shall return the approved amendment to the operator.

(4) The operator shall at all times operate the free balloon in accordance with the approved operations manual and any approved amendment thereto.

(5) 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 crew members on board;

(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;

(e) keep the operations manual up to date; and

(f) keep the operations manual in a safe place.

(6) The contents of the operations manual shall not contravene the conditions contained in the air operator certificate issued to the operator in terms of regulation 136.02.3.

(7) The structure and contents of the operations manual shall be as prescribed in Document NAM-CATS-OPS 136.

(8) The operator shall, upon receipt of the approved operations manual, or an amendment approved thereto, from the Executive Director, furnish the Executive Director with a copy thereof.

Free balloon Standard operating procedure

136.06.4 (1) The operator of a free balloon shall make available Operating instructions for use by the crew members employed by such operator.

(2) The free balloon Operating instructions shall contain -

(a) the normal, abnormal and emergency procedures relating to the free balloon;

(b) details of the free balloon system; and

(c) the checklists to be used by the crew members.

(3) The operator shall provide each crew member with a copy of those parts of the free balloon Operating instructions which are relevant to the operational duties assigned to such crew member.

(4) The operator shall ensure that the free balloon Operating instructions is provided in a hard copy or in an approved electronic format,

(5) The free balloon operating manual may be included in the Operating instructions referred to in regulation 136.06.3.

Free balloon flight manual

136.06.5 (1) The operator of a free balloon shall keep an accepted and current free balloon flight manual for each free balloon of which he or she is the operator.

(2) The crew members of the free balloons shall, on each flight, operate such free balloon in accordance with the free balloon flight manual, unless an emergency dictates otherwise.

(3) The free balloon flight manual may be included in the free balloon operating manual referred to in regulation 136.06.4.

Operational flight plan

136.06.6 (1) The operator of a free balloon shall ensure that an operational flight plan is completed for each flight undertaken by the free balloon.

(2) The operational flight plan and its use shall be included in the operations manual referred to in regulation 136.06.3.

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

(4) The items to be contained in the operational flight plan shall be as prescribed in Document NAM-CATS-OPS 136.

(5) Each operational flight plan shall be retained by the operator for a period of 90 days.

Technical log

136.06.7 (1) The operator or pilot-in-command, as the case may be, of a Namibian registered free balloon shall ensure that the free balloon carries a technical log, or any other similar document, which contains the information as prescribed in Document NAM-CATS-OPS 136, at all times.

(2) The technical log shall be kept up to date and maintained in a legible manner.

(3) All entries shall be made immediately upon completion of the occurrence to which they refer.

(4) In the case of rectification of defects having been undertaken on the free balloon, the entry shall be certified by the person taking responsibility for the maintenance performed.

(5) The operator shall retain the technical log for a period of 5 years calculated from the date of the last entry therein.

Free balloon checklist

136.06.8 (1) The operator or pilot-in-command, as the case may be, of a free balloon, shall, where applicable, establish and make available to the crew and other personnel needing the information, a checklist system for the free balloon, which shall be used by such crew and other personnel for all phases of the operation under normal, abnormal and emergency conditions.

Crew member training records

136.06.9 (1) The operator of a free balloon shall maintain the records of all training and proficiency checks undertaken by the crew members employed by such operator, and such records shall incorporate certificates indicating the successful completion of such training and proficiency checks.

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

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

Journey log

136.06.10 (1) An operator shall retain the following information for each flight in the form of a journey log:

- (a) free balloon registration;
- (b) date of registration;
- (c) names of crew members;
- (d) duty assignment of crew members;
- (e) place of departure;
- (f) place of arrival;
- (g) time of departure airborne time

(h) time of arrival or time of deflation

(i) hours of flight;

(j) nature of flight;

(k) incidents, observations (if any); and

(l) commander's signature (or equivalent).

(2) An operator may be permitted not to keep a free balloon journey log, or parts thereof, by the Executive Director if the relevant information is available in other documentation.

(3) An operator shall ensure that all entries are made concurrently and that they are permanent in nature.

(4) the journey log, or information therein, if made part of another similar document shall be retained for period of (24) months.

Fuel records

136.06.11 (1) The operator of a free balloon shall maintain fuel records for each flight undertaken by the free balloon under the control of such operator for three months.

(2) The pilot-in-command of the free balloon shall enter the fuel records referred to it subregulation (1), in the technical log, or similar document.

Certificate of release to service

136.06.12 (1) No operator or pilot-in-command, as the case may be, of a free balloon, shall operate

(a) a Namibian registered free balloon without holding a valid certificate of release to service signed by an appropriately rated aircraft maintenance engineer or an approved aircraft maintenance organisation; or

(b) a foreign registered free balloon without holding a valid certificate, equivalent to the certificate referred to in paragraph (a), issued by an appropriate authority.

(2) The operator or pilot-in-command of a free balloon shall -

(a) ensure that one copy of such certificate of release to service, or equivalent certificate, is carried on board the free balloon to which it relates and, in the case of a Namibian registered free balloon, a second copy shall be filed at the operational base of such free balloon; and

(b) retain a copy of the certificate for a period of 12 months calculated from the date of issue of such certificate.

Flight time and duty period records

136.06.13 (1) The operator of a free balloon shall -

(a) maintain current flight time and duty period records of all crew members employed 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.

(2) A crew member in the part-time employ of an operator shall maintain his or her own flight time and duty period records and shall provide copies thereof to the operator to enable such operator to ensure that the crew member does not exceed the limits prescribed in the flight time and duty scheme referred to in regulation 136.04.7.

Records of emergency and survival equipment

136.06.14. (1) The operator of a free balloon shall compile a list of all the survival and emergency equipment to be carried in the free balloon and shall have such list available at all times for immediate communication to rescue co-ordination centers.

(2) The survival and emergency equipment list shall be included in the operations manual referred to in regulation 136.06.3.

(3) The format and minimum information to be included in the survival and emergency equipment list, shall be as prescribed in Document NAM-CATS OPSS 136.

Document storage periods

136.06.15 An operator shall ensure that all records and all relevant operational and technical information for each individual flight, are stored for the periods prescribed in NAM-CATS-OPS 136.

Production of documentation and records

136.06.16 (1) An operator shall -

(a) give any person authorised by the Executive Director access to any documents and records which are related to flight operations or maintenance; and

(b) produce all such documents and records, when requested to do so by the Director, within a reasonable period of time.

(2) The pilot-in-command of a free balloon shall, within a reasonable time of being requested to do so by a person authorised by the Director, produce to that person the documentation required to be carried on board.

SUBPART 7

INSTRUMENTS AND EQUIPMENT

Approval of instruments and equipment

136.07.1 The operator of a free balloon shall ensure that a flight does not commence unless the instruments and equipment required under this Subpart, or otherwise installed in the free balloon, are -

(a) subject to the provisions of subregulation (2), approved and installed in accordance with the requirements, including airworthiness requirements applicable to such instruments and equipment's; and

Use of instruments by pilot

136.07.2 (1) Instruments in a free balloon, which are used by a pilot, shall be arranged in such manner that the pilot can see their indication 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.

(2) If a single instrument or item of equipment in the free balloon is required to be seen or operated by more than one pilot, such single instrument or item of equipment shall be installed in such manner that it can be readily seen or operated from each pilot station.

(3) The free balloon shall be equipped with means for indicating the adequacy of the power being supplied to the required flight instruments, if fitted with such equipment.

Standard first aid kit

136.07.3 (1) No operator or pilot-in-command, as the case may be, of a free balloon, shall operate the free balloon unless such free balloon is equipped with an appropriate first aid kit as prescribed in Document NAM - CATS - OPS 136.

(2) The operator or pilot-in-command shall ensure that the content of the first aid kit is in a condition necessary for its intended use.

Handheld fire extinguishers

136.07.4 No operator or pilot-in-command, as the case may be, of a free balloon shall operate the free balloon unless such free balloon is equipped with the appropriate hand fire extinguishers as prescribed in Document NAM-CATS-OPS 136.

Survival equipment

136.07.5 (1) No operator or pilot-in-command, as the case may be, of a free balloon, shall operate the free balloon over areas where search and rescue would be especially difficult, unless such free balloon is equipped with the appropriate survival equipment as prescribed in Document NAM-CATS-OPS 136.

(2) The conditions, rules requirements procedures or standards for survival equipment shall be as prescribed in Document NAM-CATS-OPS 136.

Communications equipment

136.07.6 (1) Except with the prior approval of the Director, no operator or pilot-in-command, as the case may be, of a free balloon, shall operate the free balloon unless the pilot of such free balloon is in possession of radio communication equipment capable of maintaining two way communication with an air traffic service unit.

(2) The radio communication equipment referred to in subregulation (1) shall be capable of providing communication on the aeronautical emergency frequency 121.5 MHz.

(3) The radio communication equipment installed in the free balloon shall be of the type as prescribed in Document NAM-CATS-OPS 136.

Life Jackets

136.07.7 Except as otherwise authorised by the Director, no operator or pilot-in-command of free balloon shall operate a free balloon for a flight that involves one or more of the following:

(a) flying over water where it is reasonably possible that the balloon might be forced to land onto water;

(b) taking off or landing at a site where the take-off or approach path is so disposed over water that in the event of a mishap there would be a likelihood of ditching; or

(c) when the wind is more than 5 knots onshore at take-off from a site located within one nautical mile of water measured at the ordinary high-water mark, unless life jackets are provided for all persons on board the free balloon.

SUBPART 8

FLIGHT OPERATIONS

Routes and areas of operation

136.08.1 The operator of a free balloon shall ensure that operations are only conducted along such routes, or within such areas, for which -

(a) appropriate maps and charts are available; and

(b) approval or authorisation has been obtained, where required.

(2) The operator shall ensure that-

(a) the performance of the free balloon intended to be used, is adequate to comply with minimum and maximum flight altitude requirements as prescribed in Document NAM-CATS-OPS 136; and

(b) the equipment of the free balloon intended to be used, complies with the minimum requirements for the planned operation.

Establishment of procedures

136.08.2 The operator of a free balloon shall establish -

(a) procedures and instructions, for each free balloon type, containing ground personnel and crew member duties for all types of operations on the ground and in flight; and

(b) procedures to ensure that crew members do not perform any activities during critical phases of the flight other than those required for the safe operation of the free balloon.

Operational control and supervision

136.08.3 (1) The operator of a free balloon shall exercise operational control and establish and maintain an approved method of supervision of flight operations, which shall be contained in the operations manual referred to in regulation 136.06.3.

(2) When considering the approval referred to in subregulation (1), the Executive Director shall give due consideration to the matters as prescribed in Document NAM-CATS-OPS136.

Competency of operations personnel

136.08.4 (1) The operator of a free balloon shall ensure that all personnel assigned to, or directly involved in, ground and flight operations -

(a) are properly instructed;

- (b) have demonstrated their abilities and experience appropriate to their positions and the type of operation conducted by such operator; and
 - (c) are aware of their responsibilities and the relationship of such responsibilities to the operation as a whole.
- (2) The operator shall ensure that all employees, when operating outside Namibia, know that they have to comply with the laws, regulations and procedures of the State in or over which operations are conducted.

Minimum flight altitudes

136.08.5 (1) The operator of a free balloon shall establish minimum flight altitudes and the methods to determine such minimum flight altitudes, which methods shall be approved by the Director, for all route segments to be flown which provide for the required terrain clearance, taking into account the appropriate performance operating limitations prescribed in Document NAM-CATS-OPS 136.

(2) The operator shall consider the following factors when establishing minimum flight altitudes:

- (a) the accuracy with which the position of the free balloon 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 unfavorable meteorological conditions;
- (e) possible inaccuracies in aeronautical charts; and
- (f) airspace restrictions.

(3) In complying with the provisions of sub regulation (2), the operator shall give due consideration to -

- (a) corrections for temperature and pressure variations from standard values;
- (b) the air traffic service requirements;
- (c) any contingencies which may reasonably occur along the planned route; and
- (d) free balloon mass and configuration.

Meteorological conditions

136.08.6 (1) On a flight to be conducted in accordance with IFR, the pilot in-command of a free balloon shall not -

(a) commence take-off; or unless information is available indicating that conditions will, at the estimated time of arrival of such free balloon, be at or above the applicable landing site minima

(2) On a flight conducted in accordance with VFR, the pilot-in-command of the free balloon shall not commence take-off unless current meteorological reports, or a combination of current reports and forecasts, indicate that the meteorological conditions

along the route, or that part of the route to be flown under VFR, shall, at the appropriate time, be such as to render compliance with the provisions of the regulations in this Part possible.

Mass and balance

136.08.7 (1) The operator or pilot-in-command, as the case may be, of a free balloon, shall ensure that, during any phase of operation, the loading mass of the free balloon complies with the limitations specified in the free balloon flight manual referred to in regulation 136.06.5, or the operations manual referred to in regulation 136.06.3, if the limitations therein are more restrictive.

(2) The accumulated effects of modifications and repairs of the free balloon shall be accounted for and properly documented by the operator or pilot-in-command.

(3) The free balloon shall be weighed in accordance with the provisions of subregulation (2), if the effect of modifications on the mass and balance is not accurately known.

(4) The operator or pilot-in-command of a free balloon shall determine the mass of all operating items and crew members included in the dry operating mass of the free balloon, by weighing or by using the appropriate standard mass as prescribed in Document NAM-CATS-OPS 136.

(5) The operator or pilot-in-command of a free balloon shall establish the mass of the traffic load, including any ballast, by actual weighing, or determine the mass of its traffic load in accordance with appropriate standard passenger and baggage mass as prescribed in Document NAM-CATS-OPS 136.

(6) The mass of the fuel will be determined as per the manufacturers prescribed cylinder masses and those weights are prescribed by the flight manual.

(7) The operator or pilot-in-command shall establish mass and balance documentation as prescribed in Document NAM-CATS-OPS 136.

Smoking in free balloons

136.08.8 (1) No person shall smoke in any registered free balloon.

(2) No person shall smoke in a foreign registered free balloon, which is operated to or from any operating site located in Namibia, while the free balloon is in Namibian airspace.

Fuel policy

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

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

(a) procedures, tables or graphs which are contained in or derived from the operations manual referred to in regulation 136.06.3, or current free balloon specific data;

(b) the operating conditions under which the flight is to be conducted, including-

- (i) realistic free balloon fuel consumption data;
- (ii) anticipated masses;

- (iii) expected meteorological conditions; and
- (iv) air traffic service procedures and restrictions.

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

- (a) inflation fuel;
- (b) trip fuel;
- (c) reserve fuel consisting of -
 - (i) contingency fuel as prescribed in Document NAM-CATS-OPS 136;
 - (ii) final reserve fuel;
 - (iii) additional fuel, if required by the type of operation; and
 - (vi) extra fuel, if required by the pilot-in-command.

Fuel supply

136.08.10 (1) The pilot-in-command of a free balloon shall not commence a flight unless he or she is satisfied that the free balloon carries at least the planned amount of fuel to complete the flight safely, taking into account the following:

- (a) meteorological conditions forecast;
- (b) any other conditions that may delay the landing of the free balloon or increase fuel consumption.

(2) If the usable fuel on board the free balloon is less than the final reserve fuel the pilot-in-command shall declare an emergency.

(3) The amount of fuel to be carried for each flight, shall be calculated according to the method as prescribed in Document NAM-CATS-OPS 136.

(4) The operator shall establish a procedure to ensure that in-flight fuel checks and fuel management are carried out.

Passenger briefing

136.08.11 (1) The operator or pilot-in-command, as the case may be, of a free balloon, shall ensure that -

(a) passengers are verbally briefed about safety matters, parts or all of which may be given by an audio-visual presentation;

(b) passengers are provided with a safety briefing card on which picture type instructions indicate the operation of emergency equipment and exists likely to be used by passengers; and
indicating landing positions, location of emergency equipment, items not to be carried on board and any other specific information relating to the safe conduct of passengers during flight.

(c) in an emergency during flight, passengers are instructed in such emergency action as may be appropriate to the circumstances.

- (2) The operator or pilot-in-command shall ensure that, before take-off -
- (a) passengers are briefed, to the extent applicable, on -
- (i) the prohibition of smoking;
 - (ii) the stowage of carry-on baggage;
 - (iii) The location and contents of the safety briefing card;
 - (iv) when and how oxygen equipment is to be used, if the carriage of oxygen is required;
 - (v) the location and use of life jackets, if any;
 - (vi) the method of exiting the basket; and
 - (vii) when seat belts or harnesses, if any, are to be fastened, and
 - (viii) when to adopt the landing positions
- (b) passengers receive, to the extent applicable demonstrations of -
- (i) the use of safety belts or safety harnesses, if any, including the manner in which safety belts or safety harnesses, if any, are to be fastened or unfastened;
 - (ii) the location and use of oxygen equipment and the extinguishing of all smoking material when oxygen is being used; and
 - (iii) the location and use of life jackets.
 - iv) the landing positions
- (3) The operator or the pilot-in-command shall ensure that, after take-off, passengers are reminded about -
- (a) the prohibition of smoking; and
- (b) the use of safety belts or safety harnesses, if any, are fitted on the free balloon.
- (4) The operator or pilot-in-command shall ensure that, before landing, passengers are reminded about -
- (a) the prohibition of smoking;
- (b) the use of safety belts or safety harnesses;
- (c) the stowage of carry-on baggage; and
- d) the landing positions
- (5) The operator or pilot-in-command shall ensure that, after landing passengers are reminded about -
- (a) the prohibition of smoking; and
- (b) the use of safety belts or safety harnesses.

(c) when to disembark the aircraft

Emergency Equipment

136.08.12 (1) The operator or pilot-in-command of a free balloon, as the case may be, shall ensure that emergency equipment, carried or installed in the free balloon in order to meet the requirements prescribed in this Part is in such condition that it will satisfactorily perform its design function.

(2) The pilot-in-command of the free balloon shall ensure that the emergency equipment concerned is always accessible for immediate use by the crew members.

Carriage of children and aged or infirm or handicapped passengers

136.08.13 (1) The operator of a free balloon shall establish procedures for the carriage of children and aged or infirm or handicapped passengers to ensure that such passengers when carried are properly secured with appropriate restraint devices and necessary measures are taken to ensure their safety.

(2) The Executive Director may prescribe any special requirements, limitations or other measures for the carriage of children and aged or infirm or handicapped passengers in Document NAM-CATS-OPS 136 and once so prescribed, the operator shall incorporate them into its operations manual.

Carry-on baggage

136.08.14 (1) The operator of a free balloon shall establish adequate procedures to ensure that only such baggage is carried onto the free balloon and taken into the passenger compartment as can be adequately and securely stowed.

(2) The minimum requirements for the procedures referred to in subregulation (1) shall be as prescribed in Document NAM-CATS-OPS 136.

SUBPART 9

BALLOON MAINTENANCE SUPPORT ARRANGEMENTS

General

136.09.1 (1) This Subpart prescribes the free balloons maintenance requirements for compliance with the air operator certificate requirements prescribed in Subpart 2.

(2) The operator of a free balloon shall not operate the free balloon unless such free balloon is maintained and released to service by an aircraft maintenance organisation or an AME approved by the Director, in terms of Part 145.

Operator's maintenance system

136.09.2 (1) An applicant for the issue of an air operator certificate, or an amendment or renewal thereof, shall submit an operator's maintenance system to the Executive Director for approval.

(2) The operator's maintenance system shall include -

(a) the maintenance control manual referred to in regulation 136.09.6;

(b) the operator's free balloon maintenance programme referred to in regulation 136.09.5;

(c) the free balloon's technical log referred to in regulation 136.09.7; and

(d) the technical specifications of the maintenance arrangements referred to in regulation 136.09.4(2), if applicable.

(3) The Executive Director shall approve the maintenance system if the applicant complies with the requirements prescribed in this Subpart, in conjunction with the manual of procedure of an aircraft maintenance organisation approved in terms of Part 145.

Maintenance responsibility

136.09.3 (1) The operator of a free balloon shall ensure the airworthiness of the free balloon and the serviceability of both its operational and emergency equipment by -

(a) the accomplishment of pre-flight inspections;

(b) the rectification to an approved standard, of any defect and damage affecting safe operation, if available for the free balloon type;

(c) the accomplishment of all maintenance in accordance with the aircraft maintenance manual and the approved operator's free balloon maintenance programme referred to in regulation 136.09.5;

(d) the analysis of the effectiveness of such programme;

(e) the accomplishment of any operational directive, airworthiness directive and any other continued airworthiness requirement issued or prescribed in terms of the Regulations; and

(f) the accomplishment of modifications in accordance with any approved standard and, for modifications which are not required in terms of the Regulations, the establishment of an embodiment policy.

(2) The operator shall ensure that the certificate of airworthiness for each free balloon operated, remains valid in respect of -

(a) the requirements prescribed in paragraph (1); and

(b) any expiry date, or other maintenance condition, specified on such certificate of airworthiness.

(3) The requirements prescribed in paragraph (1) shall be performed in accordance with procedures approved by the Director.

Maintenance management

136.09.4 (1) The operator of a free balloon shall be the holder of an aircraft organisation approval issued in terms of Part 145, in order to perform the requirements prescribed in regulation 136.09.3(1)(b) to (f) inclusive, unless the Executive Director is satisfied that the maintenance can be contracted to an aircraft maintenance organisation approved in terms of Part 145.

(2) If the operator is not an aircraft maintenance organisation approved in terms of Part 145, appropriate arrangements shall be made with such organisation to perform the requirements referred to in subregulation (1).

(3) The operator shall submit a copy of the arrangements referred to in subregulation (2), to the Executive Director for approval.

Operator's maintenance management programme

136.09.5 (1) The operator of a free balloon shall establish a free balloon maintenance programme according to which the free balloon shall be maintained.

(2) The free balloon management programme shall include -

(a) details of the frequency of all maintenance required to be carried out; and

(b) a reliability programme.

(3) The free balloon management programme, and any subsequent amendment thereto, shall be submitted to the Executive Director for approval.

Operator's maintenance control manual

136.09.6 (1) The operator of a free balloon shall compile a maintenance management manual which shall -

(a) comply with the requirements prescribed in this Subpart and Subpart 2, and

(b) contain the information as prescribed in Document NAM-CATS-OPS 136.

(2) If the operator is an aircraft maintenance organisation approved in terms of part 145, the maintenance management manual may be included in the manual of procedure referred to in regulation 145.02.1.

(3) The maintenance management manual, and any subsequent amendment thereto, shall be submitted to the Executive Director for approval.

Operator's free balloon technical log

136.09.7 (1) The operator of a free balloon shall establish a free balloon technical log system containing the following information for each free balloon:

(a) particulars of each flight necessary to ensure continued flight safety;

(b) the current certificate of release to service;

(c) the current maintenance statement giving the free balloon maintenance status of which maintenance required in terms of Part 43, is next due;

(d) all outstanding deferred defects which affect the operation of the free balloon; and

(e) any necessary guidance instructions on maintenance support arrangements.

(2) The free balloon technical log, and any subsequent amendment thereto, shall be submitted to the Executive Director for approval.

Maintenance records

136.09.8 (1) The operator of a free balloon shall ensure that the free balloon technical log referred to in regulation 136.09.7, is retained for a period of 24 months after the date of the last entry.

(2) The operator shall ensure that a system has been established to keep the following records for the following period:

(a) all detailed maintenance records in respect of the free balloon, and any free balloon component fitted thereto, for 24 months after such free balloon, or free balloon component, has been released to service;

(b) the total time and flight cycles, as appropriate, of the free balloon and all life-limited free balloon components, for 12 months after the free balloon has been permanently withdrawn from service;

(e) the current free balloon inspection status to prove compliance with the free balloon maintenance programme referred to in regulation 136.09.5, until the free balloon or free balloon component inspection has been superseded by another inspection of equivalent work scope and detail;

(f) the current status of airworthiness directives applicable to the free balloon and free balloon components, for 12 months after the free balloon has been permanently withdrawn from service; and

(d) details of current modifications and repair to the free balloon, or any free balloon component vital to flight safety, for 12 months after the free balloon has been permanently withdrawn from service.

(3) The operator shall ensure that, if the free balloon is permanently transferred to another operator, the records referred to in subregulations (1) and (2) are also transferred to such operator.

Continued validity of air operator certificate in respect of maintenance system

136.09.9 The operator of a free balloon shall comply with the requirements prescribed in Subpart 2, to ensure the continued validity of the air operator certificate in respect of the maintenance system.

Quality Assurance System

136.09.10 (1) For maintenance purposes, the operator's quality assurance system, as required by regulation 136.03.7, must additionally include at least the following functions:

(a) monitoring that the activities of regulation 136.09.3 are being performed in accordance with the accepted procedures;

(b) monitoring that all contracted maintenance is carried out in accordance with the contract; and

(c) monitoring the continued compliance with the requirements of this Subpart.

(2) Where the operator is approved in accordance with Part 145, the quality assurance system may be combined with that required by Part 145.

SUBPART 10

INSURANCE REQUIREMENTS FOR BALLOON OPERATORS

Requirement for free balloons to be insured

136.10.1. (1) An operator of a free balloon shall be insured in accordance with this Subpart as regards to aviation specific liability in respect of passengers, baggage, third parties and

the extent of the acts covered by the insurance as well as the minimum insurance cover shall be as prescribed in regulation 136.10.2.

(2) The operator of a free balloon shall ensure that insurance cover exists for each and every flight, regardless of whether the free balloon operated is owned by him or her or through any form of leasing as contemplated in regulations 136.02. 13 to 16.

(3) The operator shall when apply for an air operator certificate under regulation 136.02.2 or for renewal of a certificate provide the Executive Director with documentary proof that each free balloon to be used in the operation is insured as required under this Subpart.

(4) Where the Director, an inspector or an authorized officer or person has reason to believe that a free balloon is intended or likely to be flown in such circumstances that the requirements of this regulation will be contravened he or she shall -

(a) give to the person appearing to him or her to be in command of the free balloon a direction that he or she shall not permit the free balloon to take off until further notice; and

(b) take such steps as are necessary to detain the free balloon until the requirements of this regulation are complied with.

(5) The operator or any person in charge of free balloon used for commercial air transport shall on request by the Director, an inspector, an authorised officer or person authorised by the Executive Director produce proof of insurance in respect of the free balloon to the Director, inspector or officer.

Insurance liability

136.10.2 (1) For liability in respect of -

- (a) passengers, the minimum insurance cover shall be N\$ 1 500 000 passengers but for
- (b) non-commercial air transport purposes it shall be N\$500000;
- (c) cargo, the minimum insurance cover shall be N\$150 per kilogram if cargo is carried.

(2) In respect of liability for third parties, the minimum insurance cover per accident, for each and every free balloon shall be -

Category MTOM minimum insurance (million N\$) (kg)

1 <500	2 000 000
2. <1000	2 000 000
3. <2700	4 500 000
4. <6000	10 000 000

“Fees relating to Part 136 (all fees to be revised)

NAMIBIAN CIVIL AVIATION TECHNICAL STANDARDS RELATING TO AIR TRANSPORT OPERATIONS: FREE BALLOONS – PART 136

1. GENERAL

- 1.1 Section 227 of the Civil Aviation Act, 2016 (Act no. 6 of 2016 – hereinafter “the Act”) empowers the Executive Director of Civil Aviation to issue technical standards for civil aviation “on such matters as may be prescribed”. Section 227(3) of the Act further empowers the Executive Director of Civil Aviation to incorporate into a technical standard any international aviation standard or any amendment without publishing the text of such standard or any amendment “by mere reference” to the title, number and year of issue of such standard or amendment or to any other particulars by which such standard or amendment is sufficiently identified.
- 1.2 This Part 136 provides for the issue of technical standards as NAM-CATS-OPS 136. The Executive Director of Civil Aviation has, pursuant to the empowerment mentioned above, issued technical standards relating to NAMCAR Part 2 (Units of Measurement) to be known as NAM-CATS-OPS-136.
- 1.3 NAM-CATS-OPS-136 comprises the standards, rules, requirements, methods, specifications, characteristics and procedures which are applicable in respect of standard units of measurement to be used in all aspects of civil aviation air and ground operations.
- 1.4 To the extent possible, each reference to a technical standard in this document, is a reference to the corresponding regulation in the Namibian Civil Aviation Regulations.

Example: (1) Technical standard 2.01.2 refers to regulation 2 of Subpart 01 of the Part 136

(2) Technical standard 2.02 refers to either the whole, or more than one specific regulation, of Subpart 02 of Part 136.

1.5 Where there is any perceived disparity of meaning or inconsistency between these technical standards and the regulations, the provisions of the regulations will take precedence.

1.6 Where there is a difference between a standard and procedure prescribed in ICAO documents and the Civil Aviation Technical Standards (CATS), the CATS standard will prevail.

2. GUIDANCE MATERIAL

2.1 Guidelines and recommendations in support of any particular technical standard are contained in schedules or appendices to, and/or compliance notes inserted throughout, the technical standards. These guidelines are intended to provide recommendations and guidance to illustrate a means, but not necessarily the only means of complying with the regulations and technical standards. They may explain certain regulatory requirements by providing interpretive and explanatory materials. It is expected that service providers will document internal actions in their own operational manuals, to put into effect those, or similarly adequate, practices.

3. AMENDMENTS TO THE TECHNICAL STANDARDS

3.1 The NCAA Safety Division OPS Dept (OPS) has responsibility for the technical content of this technical standard.

3.2 This technical standard is issued, and may only be amended, under the authority of the Executive Director of Civil Aviation.

3.3 Requests for changes to the content of this technical standard must be forwarded to the Executive Director and may come from:

- (a) technical areas within NCAA; or
- (b) aviation industry service providers or operators; or
- (c) pilots and ATC staff.

3.4 The need to change the content of this technical standard may arise for any of the following reasons:

- (a) to ensure safety;
- (b) to ensure standardisation;

- (c) to respond to changed NCAA regulations or standards;
- (d) to respond to changes initiated by ICAO;
- (e) to accommodate proposed initiatives or new technologies.

3.5 NCAA may approve trials of new procedures or technologies to develop appropriate standards.

3. INTERNATIONAL STANDARDS

4.1 The following international standards, recommended practices and procedures, as amended from time to time, are incorporated into the technical standards contained in this document:

- (a) ICAO Annex 6 – Air Operations to be used in air and ground operations;
- (b) ICAO Regional Supplementary Procedures (Doc 7030), as amended from time to time.
- (c) ICAO Human Factors Manual (Doc 9683)

4.2 Differences from ICAO Standards, Recommended Practices and Procedures are published in the AIP.

2. PURPOSE

Document NAM-CATS-OPS 136 contains the standards, rules, requirements, methods, specifications, characteristics and procedures which are applicable in respect of air transport operations: free balloons.

Each reference to a technical standard in this document, is a reference to the corresponding regulation in the Namibian Civil Regulations, 2001, for example, technical standard 136.02.8 refers to regulation 8 of Subpart 2 of Part 136 of the regulations.

The abbreviation 'CAR' is used throughout this document when referring to any regulation.

The abbreviation 'TS' refers to any technical standard.

3 SCHEDULES AND NOTES

Guidelines and recommendations in support of any particular technical standard, are contained in schedules to, or notes inserted throughout the technical standards.

LIST OF TECHNICAL STANDARDS

- 136.01.5 INFORMATION ON EMERGENCY AND SURVIVAL EQUIPMENT CARRIED**
 - 1. Emergency and survival list

- 136.02.2 Application for issue or amendment of air operating certificate: FREE BALLOONS**
 - 1. Form of application

- 136.02.3 Assesment of Application and issue of air operating certificate.**
 - 2. Form of certificate

- 136.02.5 RENEWAL OF Air Operator CERTIFICATE**
 - 1. Form of application

- 136.02.16 SUBCHARTERING**
 - 1. Sub-chartering

- 136.03.14 STATISTICAL INFORMATION**
 - 1. Statistical information

- 136.03.7 QUALITY ASSURANCE**
 - 1. Minimum standards for a quality assurance system.
 - 2. Compliance with the procedures for operations inspection, certification and continued surveillance

- 136.03.9 SAFETY MANAGEMENT SYSTEM**
 - 1. Guidelines for safety management systems

- 136.04.3 CREW MEMBER EMERGENCY DUTIES**
 - 1. Emergency evacuation demonstration

136.04.7 FLIGHT TIME AND DUTY SCHEME

1. Flight time and duty scheme

136.05.1 TRAINING OF CREW MEMBERS

1. Training manual
2. Training syllabus

136.05.3 CONVERSION TRAINING

1. Operator's conversion training course syllabus.
2. Crew resource management training

136.06.3 OPERATIONS MANUAL

1. Structure of operations manual.
2. Contents of operations manual
3. General

136.06.6 OPERATIONAL FLIGHT PLAN

1. Items in the operational flight plan

136.06.7 TECHNICAL LOG

136.07 Information to be contained in the technical log

136.06.14 DOCUMENT STORAGE PERIODS

136.07.3 STANDARD FIRST AID KIT

1. Standard first aid kits

136.07.4 Hand held FIRE EXTINGUISHERS

1. Definitions
2. Hand fire extinguishers

136.07.5 SURVIVAL EQUIPMENT

1. Survival equipment
2. Interpretation
3. Additional survival equipment
4. Duplicates
5. Location

136.07.7 COMMUNICATIONS EQUIPMENT

136.08 General

136.09 Radio equipment

136.10 Audio selector panel

136.11 Radio equipment for operations under VFR over routes navigated by reference to visual landmark

~~136.12 Communication and navigation equipment for operations under IFR, or under VFR, over routes not navigated by reference to visual landmarks.~~

136.08.1 ROUTES AND AREAS OF OPERATION

1. Adequate operations site
2. Airfield operating minima-take off, en-route and landing

136.08.2 OPERATIONAL CONTROL and supervision

1. Information to be contained in the manual
- 2.

136.08.7 MASS AND BALANCE

1. Definitions

2. Loading, mass, and balance
3. Mass values for crew
4. Mass values for passengers and baggage
5. Mass and balance documentation

136.08.9 FUEL POLICY

1. Contingency fuel

136.08.8 FUEL SUPPLY

136.08.8.1 Fuel planning and management

136.09 Monitoring fuel on board

136.08.14 CARRY-ON BAGGAGE

1. Procedures for stowing carry-on baggage

136.09.6 Operators MAINTENANCE MANAGEMENT MANUAL

1. General
2. Information to be contained in the manual

ANNEXURE A APPLICATION FOR AIR OPERATOR CERTIFICATE

ANNEXURE A APPLICATION FOR RENEWAL

ANNEXURE B AIR OPERATOR CERTIFICATE

136.01.5 INFORMATION ON EMERGENCY AND SURVIVAL EQUIPMENTS CARRIED

136.01.5.1 Emergency and survival list

The operator must have a list containing the following minimum information regarding the emergency and survival equipment carried on board:

- (1) sufficient, adequate and suitable first - aid kits and their content;
- (2) life jackets; (only if flying over water)
- (3) water supplies; and
- (4) type and frequencies of emergency portable radio equipment.

The operator shall ensure that all personnel are given an opportunity familiarise themselves with all equipment on a regular basis.

136.02.1(1) APPLICATION FOR AIR OPERATOR CERTIFICATE OR AMENDMENT THEREOF: FREE BALLOONS

136.02.2.(1) a Form of application

The form referred to in CAR 136.02.2, in which application must be made for the issuing of an air operator certificate, or an amendment thereof, is contained in the appropriate portion of Annexure A.

136.03.3 AIR OPERATOR CERTIFICATE

136.02.3 (3) Form of certificate

The form referred to in CAR 136.02.3 (3), on which an air operator certificate is issued, is contained in Annexure B.

136.02.5 RENEWAL OF CERTIFICATE

Form of application

The form in which an application for the renewal of an air operator certificate must be made, is contained in the appropriate portion of Annexure A.

136.02.16 SUBCHARTERING

136.02.16(1) Sub-chartering

An operator may sub-charter a free balloon or crew, or both a free balloon and crew in circumstances where the operator is faced with an immediate, urgent and unforeseen need for a replacement free balloon or crew.

136.03.14 STATISTICAL INFORMATION

1. Statistical information

The statistical information referred to in CAR 136.03.4, that must be furnished to the Director, is the appropriate statistical information required by -

- (1) the International Civil Aviation Organisation, in the Manual on the ICAO Statistics Programme, Doc 9060; and
- (2) the Southern African Development Community Protocol on Transport, Communications and Meteorology of 24 August 1996, Chapter 9.

136.09.10 QUALITY ASSURANCE

1. Minimum standards for a quality assurance system.

- (1) The quality assurance system referred to in CAR 136.03.7, must include -
 - (a) a clear definition of the level of quality the operator intends to achieve;
 - (b) a quality assurance programme that contains procedures designed to verify that all operations are being conducted in accordance with all the applicable requirements, standards and procedures;
 - (c) a procedure that sets out the level and frequency of the internal audits;
 - (d) a procedure to record the findings and communicate them to management;
 - (e) a list of responsible persons;

- (f) procedures by which other quality indicators such as balloon malfunction reports, incidents, occurrences, complaints and defects are brought into the quality assurance system;
 - (g) procedures for management analysis and overview;
 - (h) procedures for rectifying any deficiencies which may be found; and
 - (i) procedures for documenting the complete review process from the audits to the satisfactory management review so that this is available to the Director during a safety inspection and audit.
- (2) For maintenance purposes, the quality assurance system must, in addition, include at least the following functions:
- (a) Monitoring that the activities of maintenance responsibility are being performed in accordance with the approved procedures;
 - (b) monitoring that all contracted maintenance is carried out in accordance with the contract; and
 - (c) monitoring the continued compliance with the requirements prescribed in Subpart 9 of Part 136.
- (3) Measures must be taken to ensure that the system is understood, implemented and complied with at all levels.
- (4) The quality assurance system must be documented in the operations manual referred to in CAR 136.06.3.

136.03.9 SAFETY MANAGEMENT SYSTEM

1. Guidelines for safety management systems

- (1) An operator may design his or her safety management system based on the guidelines contained in NAMCARS/NAMCATS Part 140

136.04.3 CREW MEMBER EMERGENCY DUTIES

During the before flight briefing the crew member must be able to demonstrate the following:

- (1) Demonstration of the method used for emergency evacuation.
- (2) Actual firefighting using equipment representative of that carried in the free balloon on an actual or simulated fire.
- (3) Actual handling of pyrotechnics, real or simulated, where fitted; and
- (4) Demonstration in the use of life jackets, where available.

136.04.7 FLIGHT TIME AND DUTY SCHEME

(a) Flight time and duty scheme

As per the current flight and Duty, in NAMCATS 121.02.15 and where applicable.

136.05 TRAINING OF CREW MEMBERS

136.05.1 Training manual

The following information and instructions in relation to the training, experience, practice and periodical tests required under CAR 136.05.1 shall be included in the training manual referred to in regulation 136.05.1:

- (1) the manner in which the training, practice and periodical tests required under CAR 136.05.1 are to be carried out;
- (2) the minimum qualifications and experience which the operator requires of persons appointed by him or her to give or to supervise the said training, practice and periodical tests;
- (3) the type of the training, practice and periodical tests which each such person is appointed to give or supervise;
- (4) the type of free balloon in respect of which each such person is appointed to give or supervise the said training, practice and periodical tests;
- (5) the minimum qualifications and experience required for each member of the crew undergoing the said training, practice and periodical tests;
- (6) the current syllabus for, and specimen forms for recording, the said training, practice and periodical tests;
- (7) the manner in which burner failure are to be simulated in the free balloon in flight;
- (8) the extent to which the said training and testing is permitted in the course of flights for the purpose of commercial air transport; and
- (9) the use to be made in the said training and testing of apparatus approved for the purpose by the Director.

136.05.1.3 Training syllabus

The training syllabus for crew members required in terms of CAR 136.05.1, is -

- (1) the syllabi prescribed in Parts 61, 63 for initial training;
- (2) the syllabi prescribed in TS 136.05.3 for conversion training;
- (3) the syllabi prescribed in TS 136.05.4, for recurrent training and checking and refresher training and type and differences training; and
- (4) the syllabi prescribed in Part 92 for initial and refresher dangerous goods training.

136.05.3 CONVERSION TRAINING

136.05.3 Operator's conversion training course syllabus.

- (c) An operator's conversion course syllabus must include the following items:
 - i. Ground training and checking including free balloon systems, normal, abnormal and emergency procedures;
 - (a) emergency and safety equipment training and checking which must be completed before free balloon training commences;
 - (b) crew resource management training;
 - ii. The conversion course must be conducted in the order set out in sub-paragraph (1) Above

136.05.3 (1) Crew Resource Management Training

137 Procedures

If the flight crew member has not previously completed an operator's conversion course, the operator ensures that a crew resource management (CRM) course with a full-length syllabus is completed. The flight crew member should not be assessed either during or upon completion of this course.

- (1) If the crew member undergoes a subsequent conversion course with the same or another operator, he or she should complete the appropriate elements of the CRM course. The flight crew member should not be assessed either during or upon completion of this training.
- (3) Recurrent training:
 - (a) An operator should ensure that flight crew members complete the major elements of the full-length CRM course over a four-year recurrent training cycle. The flight crew member completing this refresher training should not be assessed.

2. Objective and contents

- (1) CRM is the effective utilisation of all available resources (e.g. crew members, free balloon systems and supporting facilities) to achieve safe and efficient operation.
- (1) The objective of CRM is to enhance the communication and management skills of the crew member concerned. The emphasis is placed on the non-technical aspects of crew performance.
- (2) CRM training should include the following elements:
 - (a) Statistics and examples of human factor related accidents;
 - (b) human perception, learning process;
 - (c) situational awareness;
 - (d) management of workload, tiredness or fatigue, and vigilance - management of stress;

- (e) operator's standard operating procedures;
- (f) personality type, delegation, leadership, effective communication skills;
- (g) the CRM loop:

Notion of synergy Inquiry (explore, examine, scrutinize)

Conflict resolution
Decision making
Critique
Feedback

- (h) effective communication and co-ordination within the crew, and between crew members and other operational personnel (air traffic service, maintenance personnel, etc.);
 - (i) error chain and taking actions to break the error chain; and
 - (j) implications of automation on CRM.
- (4) CRM training should also address the nature of the operator's operations as well as the associated crew operating procedures. This will include areas of operations which produce particular difficulties, adverse climatological conditions and any unusual hazards.
- (5) CRM training should include both:
- (a) Classroom training; and
 - (b) practical exercises including group discussions and accident reviews to analyse communication problems and instances or examples of a lack of information or crew management.
- (6) A one-day course for single-pilot operations may be acceptable.
- (7) As part of the operations manual, the CRM course (for conversion and recurrent training) is approved by the Director. An operator may use a course provided by another operator, if that course has already been approved.

136.06.3 OPERATIONS MANUAL

1. Structure of operations manual.

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

Part A: General

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

Part B: Free balloon operating matters

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

Part C: Route and operations site instructions and information

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

Part D: Training

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

- (2) An operator must ensure that the contents of the operations manual are in accordance with paragraph 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.

136.06.3.6 Contents of operations manual

PART A: GENERAL

1. Administration and control of operations manual

- (1) Introduction
 - (a) A statement that the manual complies with all applicable CARs and with the terms and condition of the applicable air operator 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. **Organisation and responsibilities**

(1) Organisational structure

A description of the organisation 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, Department etc, which pertain to the safety of flight operations, must be shown.

(2) Nominated postholders

(a) A description of the functions and the responsibilities of the nominated persons, including their names, should be contained in the operations manual.

(b) The operator should make arrangements to ensure continuity of supervision in the absence of nominated persons.

(c) A person nominated by the operator, who has already been nominated by another operator, may be acceptable subject to the agreement of the competent authorities concerned.

(d) Nominated persons should work sufficient hours to fulfil the management functions associated with the scale and scope of the operation.

(e) One person may hold more than one of the nominated posts if such an arrangement is considered suitable and properly matched to the scale and scope of the operation.

(f) The acceptability of a single person holding several posts, possibly in combination with being the accountable manager, should depend upon the nature and scale of the operation. The two main areas of concern should be competence and the individual's capacity to meet his or her responsibilities.

(g) As regards competence in different areas of responsibility, there should not be any difference from the requirements applicable to persons holding only one post.

(h) The capacity of an individual to meet his or her responsibilities should primarily be dependent upon the scale of the operation. However, the complexity of the organisation or of the operation may prevent, or limit, combinations of posts which may be acceptable in other circumstances.

3. Personnel requirements

COMPETENCE OF NOMINATED PERSONS

(a) Nominated persons possess the experience and meet the licensing provisions that are listed below in (b) to (e). Exceptionally, in particular cases, the competent authority may accept a nomination that does not meet these provisions in full. In that case, the nominee has comparable experience and also the ability to perform effectively the functions associated with the post and with the scale of the operation.

(b) Nominated persons have:

(1) practical experience and expertise in the application of aviation safety standards and safe operating practices;

(2) comprehensive knowledge of:

(i) the applicable EU safety regulations and any associated requirements and procedures; and

(ii) the need for, and content of, the relevant parts of the operations manual; and

(3) 3 years of relevant work experience.

(c) Flight operations

The nominated person:

(1) holds or has held a valid flight crew licence and the associated ratings appropriate to the relevant type of operation; or

(2) has demonstrated in another manner thorough knowledge of the relevant flight operations.

(d) Ground operations

The nominated person has a thorough knowledge of the operator's ground operations concept.

(e) Continuing airworthiness

The nominated person has the relevant knowledge and meets the appropriate experience requirements related to balloon continuing airworthiness as detailed in

(4) Responsibilities and duties of operations management personnel

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 CARs.

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

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

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

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

136.08.3 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 qualification 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 Safety Management System -

A description of the main aspects of the Safety Management System as per Namcars /cats part 140

- (3) Operational control

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

136.03.7 Quality assurance system

A description of the quality assurance system adopted.

136.04.1 Crew composition

- (1) Crew composition

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

- (a) The type of free balloons being used;
 - (b) the area and type of operation being undertaken;
 - (c) the phase of the flight;
 - (d) the minimum crew requirement and flight time and duty period planned;
 - (e) experience (total and on type) recency and qualification of the 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 crew.
- (2) Designation of the pilot-in-command
- The rules applicable to the designation of the pilot-in-command.
- (3) Crew incapacitation
- Instruction on the succession of command in the event of crew incapacitation.

136.05.3 (1) e. Qualification requirements

- (1) A description of the required licence, rating(s), qualification/competency (e.g for routes and operations sites), experience training, checking and recency for operations personnel to conduct their duties. Consideration must be given to the free balloon type, kind of operation and composition of the crew.
- (2) Flight crew
 - (a) Pilot-in-command
 - (b) Co-pilot
 - (c) Pilot under supervision
 - (d) Operation on more than one type variant
- (3) Training checking and supervision personnel
 - (a) For Flight crew
- (4) Other operations personnel

17. Crew health precautions

- (1) Crew health precautions

The relevant regulations and guidance to crew members concerning

health including -

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

Note See Document NAM-CATS-67

136.04.7 Flight time limitations

Flight time and duty period limitations and rest requirements as per Namcars/Cats 91

136.06.4 Standard 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,
- (b) Criteria for determination the usability of operations sites Methods for the determination operation sites operating minima
- (c) En route operating minima for VFR flights.
- (d) Presentation and application of operations site and en route operating minima.
- (e) 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.

(f) Determination of the quantities of fuel carried

The methods by which the quantities of fuel 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 replanning and of failure of one or more of the free balloon's power plants. The system for maintaining fuel records must also be described.

(h) Mass and load calculation.

The general principles of mass and balance including:

- (i) Definitions
- (ii) methods, procedures and responsibilities for preparation and acceptance of mass and balance calculations;
- (iii) the policy for using either standard or actual masses;
- (iv) the method of determining the applicable passenger and baggage mass;
- (v) the applicable passenger and baggage masses for various types of operations and free balloon types;
- (vi) general instruction and information necessary for verification of the various types of load calculation documentation in use;

(i) Flight plan, if any

Procedures and responsibilities for the preparation and submission of the 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.

- (1) List of documents, forms and additional information to be carried.
- (2) Ground handling instructions
 - (a) Fueling procedures
 - (b) Free balloon, passengers handling procedures related to safety

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

- (i) disembarkation of persons
 - (ii) sick passengers and person with reduced mobility
 - (iii) permissible size and weight of hand baggage;
 - (iv) loading and securing of items in the free balloon;
 - (v) positioning of ground personnel;
 - (vi) operation of free balloon doors (when fitted);
 - (vii) safety on the launching site, including fire prevention
 - (viii) servicing of free balloons;
 - (ix) documents and forms for free balloon handling; and
 - (x) multiple occupancy of free balloon spaces.
- (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.

- (3) Flight procedures
 - (a) VFR policy

A description of the policy for allowing flights to be made under VFR.

- (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 where these affect the flight path to be followed by the free balloon;
- (c) Altimeter setting procedures
- (d) Policy and procedures for in-flight fuel management
- (e) Adverse and potentially hazardous atmosphere conditions

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

- (i) thunderstorms;
 - (ii) icing conditions;
 - (iii) turbulence;
 - (iv) wind shear;
 - (v) jetstream;
 - (vi) volcanic ash clouds;
 - (vii) heavy precipitation;
 - (viii) sand storms;
 - (ix) mountain waves; and
 - (x) significant temperature inversions.
- (f) Use of safety harness for crew and passengers, if provided

The requirements for crew members and passengers to use safety harnesses during the different phases of flight or whenever deemed necessary in the interests of aviation safety.
 - (g) Admission to pilot's compartment

The conditions for the admission to the pilot's compartment of persons other than the flight crew
 - (h) Basket safety requirements Procedures covering:
 - (i) procedures to be followed during passenger embarkation and disembarkation;
 - (ii) smoking on board.
 - (i) Passenger briefing procedures

The content means and timing of passenger briefing in accordance with CAR 136.08.11.

- i. Non-revenue flights Procedures
and limitations for -
- ii. training flights;
- iii. test flights;
- iv. demonstration flights; and including the kind of persons who may be carried on such flights.

4. **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, labeling, handling, stowage and segregation of dangerous goods;
 - (c) procedures for responding to emergency situations involving dangerous goods;
 - (d) duties of all personnel involved as referred to in a Part 92; and
 - (e) instructions on the carriage of the operator's employees.
- (2) The conditions under which weapons, munitions of war and sporting weapons may be carried.

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.

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 person 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.

13. **Rules of the air**

Rules of the air including-

- (1) visual flight rules;
- (2) territorial application of the rules of the air;
- (3) communication procedures including COM-failure procedures; reception of civil aircraft;
- (4) the circumstances in which a radio listening watch is to be maintained ;
- (5) time system used in operation;
- (6) ATC clearances adherence to flight plan and position reports;
- (7) Procedures for pilots observing an aviation accident or receiving a distress transmission;
- (8) The ground/air visual codes for use by survivors, description and use of signal aids; and
- (9) distress and urgency signals.

PART B: FREE BALLOON OPERATING MATTERS

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

1. **General information and units of measurement**

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

2. **Limitations**

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

- (1) certification status;
- (2) passenger positioning configuration for each free balloon type including a pictorial presentation;
- (3) types of operation that are approved;
- (4) crew composition;
- (5) mass and balance
- (6) wind speed limits for launching
- (8) wind limits;
- (9) performance limitations for applicable configurations; and
- (10) system limitations.

3. **Normal procedures**

The normal procedures and duties assigned to the crew, the appropriate checklists, the system for use of the checklists and a statement covering the necessary coordination procedures between flight crew and ground crew

The following normal procedures and duties must be included:

- (1) Pre-flight;
- (2) pre-departure;
- (3) altimeter setting and checking;
- (4) take-off and climb;
- (5) cruise and descent;
- (6) approach, landing preparation and briefing;
- (7) VFR approach;
- (8) visual approach;
- (9) missed approach;
- (10) normal landing; AND
- (11) post landing.

4. **Abnormal and emergency procedures**

The abnormal and emergency procedures and duties assigned to the crew, the appropriate checklists, the system for use of the checklists and a statement covering the necessary coordination procedures between flight crew and ground crew.

The following abnormal and emergency procedures and duties must be included:

- (1) Crew incapacitation;
- (2) fire and smoke drills;
- (3) exceeding structural limits such as overweight landing;
- (4) lightning strikes;
- (5) distress communications and alerting ATC to emergencies;
- (7) burner failure;
- (8) emergency landing/ditching.
- (9) Power line strike

6. **Flight planning**

- (1) Data and instructions necessary for pre-flight and in-flight planning.

7. **Mass and balance**

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

- (2) calculation system (e.g. index system);
- (3) information and instructions for completion of mass and balance documentation,
- (4) limiting masses of the various versions; and
- (5) dry operating mass

8. **Loading**

Procedures and provisions for loading and in the free balloon.

9. **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 checklists(s) must

also be included.

- (2) The procedure for determining the amount of oxygen required and the quantity that is available.

12. **Emergency evacuation procedures**

- (3) Instructions for preparation for emergency evacuation including crew coordination and emergency station assignment.
- (4) Emergency evacuation procedures

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

13. **Free balloon systems**

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

PART C: ROUTE AND OPERATIONS SITE INSTRUCTIONS AND INFORMATION

Instructions and information relating to communications, navigation and operations sites including minimum flight levels and altitudes and operating minima for each operations site planned to be used including-

- (1) minimum flight level/altitude;
- (2) operating minima for departure, destination and alternate operations sites;
- (3) communication facilities and navigation aids;
- (4) launching site data and operations site facilities;
- (5) approach missed approach and departure procedures
- (6) COM-failure procedures
- (7) search and rescue facilities in the area over which the free balloon is to be flown
- (8) a description of the aeronautical charts that must be carried on board (only if flying in controlled airspace) in relation to the type of flight and the route to be flown, including the method to check their validity;
- (9) Availability of aeronautical information and MET services;
- (10) en route COM/NAV procedures;

PART D: TRAINING

- (1) Training syllabi and checking programmes for all operations personal

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 Part 61 and Subpart 5 of Part 136:
 - (b) For operations personnel concerned, including crew members -
 - (i) All relevant items prescribed in Part 92; and
 - (ii) All relevant items regarding operator security.
 - (c) For operations personnel other than 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 stimulated during commercial flights.
- (4) Description of documentations to be stored and storage periods.

3. General

The operations manual must be drawn up in accordance with the current ICAO Doc 9376-AN/914, "Preparation of an Operations Manual".

1. Items in the operational flight plan

- (1) An operator must ensure that the operational flight plan used and the entries made during flight contain the following items:
 - (a) Free balloon registration;
 - (b) free balloon type and variant;
 - (c) date of flight;
 - (d) flight identification;
 - (e) names of crew members;

- (f) duty assignment of crew members;
 - (g) place of departure;
 - (h) time of departure (planned take off time);
 - (i) planned place of arrival
 - (j) time of arrival (planned landing time.
 - (k) type of operation;
 - (l) safe altitudes and minimum levels; if applicable
 - (m) planned altitudes and flight levels;
 - (n) fuel calculations (records of in-flight fuel checks);
 - (o) Load calculations / limits:
 - (a) Max take off mass
 - (b) Actual take off mass
 - (c) Max envelope temperature
 - (d) Elevation of launch site
 - (e) Max planned altitude
 - (f) Ambient temperature
 - (p) fuel on board when starting burners
 - (q) where required, initial flight plan clearance and subsequent re-clearance;
 - (r) relevant meteorological information.
- (2) Items which are readily available in other documentation or from an acceptable source, or which are irrelevant to the type of operation, may be omitted from the operational flight plan.
 - (3) The operator must ensure that the operational flight plan and its use is described in the operations manual.
 - (4) The operator must ensure that all entries in the operational flight plan are made concurrently and that they are permanent in nature.

136.06.7 TECHNICAL LOG

1. Information to be contained in the technical log

- (1) A flight plan, if required, filed prior to departure must contain the following items:

- (a) identification data;
- (b) flight rules and type of flight;
- (c) number and type(s) of free balloon(s)
- (d) radio communication, navigation and approach-aid equipment;
- (e) site of departure and time;
- (f) destination operations site and estimated times of arrival;
- (g) fuel endurance;
- (h) total number of persons on board;
- (i) emergency and survival equipment and colour of free balloon;
- (j) other pertinent information; and
- (k) name, postal address, telephone and telefax number of the operator or pilot-in-command of the free balloon which must be completed in field 18 of the standard flight plan form.

(2) The operator must ensure that all entries are made concurrently and that they are permanent in nature.

136.06.15 DOCUMENT STORAGE PERIODS

An operator shall ensure that the following information/documentation is stored in an acceptable form accessible to the Director, for the periods shown in the table below.

Note: Additional information relating to maintenance records is prescribed in Subpart 9.

Table 1 - Information used for the preparation and execution of a flight

Table 2 – Reports

Table 3 - Flight crew records

Table 5 - Records for other operation personnel

Table 6 - Other records

136.07.3 STANDARD FIRST AID KIT

1. Standard first aid kits

- (1) The following must be included in the first aid kit:
 - (a) bandage (unspecified);
 - (b) burns dressings (unspecified);
 - (c) wound dressings, large and small;
 - (d) adhesive tape, safety pins and scissors;
 - (e) small adhesive dressings;
 - (f) antiseptic wound cleaner;
 - (g) adhesive wound closures;
 - (h) adhesive tape;
 - (j) disposable resuscitation aid;
 - (k) simple analgesic e.g. paracetamol
 - (l) anti-emetic e.g. cinnarizine;
 - (m) nasal decongestant;
 - (n) first aid handbook;
 - (o) splints, suitable for upper and lower limbs;
 - (p) gastrointestinal antiacid;

- (q) anti-diarrheal medication e.g. loperamide;
- (r) round/air visual signal code for use by survivors;
- (s) disposable gloves; and
- (t) a list of contents. This should include information on the effects and side effects of drugs carried.

Note 1. An eye irrigator whilst not required to be carried in the first aid kit should, where possible, be available for use on the ground.

- (2) Unless the standard first aid kit is clearly visible, its location must be indicated by a placard or sign, and appropriate symbols may be used to supplement the placard or sign.
- (3) The operator or pilot-in-command must ensure that the standard first aid kit is readily accessible for use.
- (4) A free balloon must be equipped with the following number of standard first aid kits: **FIRE EXTINGUISHERS**

2. Hand fire extinguishers

The operator or pilot-in-command may not operate a free balloon unless hand fire extinguishers are provided for use in flight crew, passenger compartments

- (1) The type and quantity of extinguishing agent must be suitable for the kinds of fires likely to occur in the compartment where the extinguisher is intended to be used and for personnel compartments, must minimize the hazard of toxic gas concentration.
- (2) At least one hand fire extinguisher, containing dry chemical; powder or equivalent as the extinguishing agent, must be conveniently located on the pilot's compartment for use by the flight crew.
- (1) There must be at least one fire extinguisher suitable for flammable fluid installed on the pilot's compartment
- (2) Unless an extinguisher is clearly visible, its location must be indicated by a placard or sign, and appropriate symbols may be used to supplement such a placard or sign.

136.07.4 SURVIVAL EQUIPMENT

1. Survival equipment

The operator or pilot-in-command may not operate a free balloon across areas in which search and rescue would be especially difficult, unless it is equipped with the following:

- (1) Signaling equipment to make the pyrotechnical distress signals approved

by the Director;

- (2) at least one **ELT**; and
- (3) additional survival equipment for the route to be flown taking account of the number of persons on board prescribed in paragraph 3: Provided that the additional equipment need not be carried when the free balloon remains within a distance from an area where search and rescue is not especially difficult.

2. Interpretation

For the purposes of this technical standard the expression “area in which search and rescue would be especially difficult” means -

- (1) an area so designated by the State responsible for managing search and rescue; or
- (2) an area which is largely uninhabited and where -
 - (a) the State responsible for managing search and rescue has not published any information to confirm that search and rescue would not be especially difficult; and
 - (b) the State referred to in (a) does not, as a matter of policy, designate areas as being especially difficult for search and rescue.

3. Additional survival equipment

- (1) The following additional survival equipment must be carried when
 - (a) 500 ml of water for each four, or fraction of four, persons on board;
 - (b) one knife;
 - (c) first aid equipment;
 - (d) one set of air/ground codes.
- (2) In addition, when polar conditions are expected, the following should be carried:
 - (a) means for melting snow;
 - (b) one snow shovel and one ice saw;
 - (c) sleeping bags for use by one third of all persons on board and space blankets for the remainder or space blankets for all passengers on board; and
 - (d) one Arctic/polar suit for each crew member carried.

4. Duplicates

If any item of equipment contained in the above list is already carried on board the free balloon in accordance with another requirement, there is no need for this to be duplicated.

5. Location

Unless the survival equipment is clearly visible, its location must be indicated by a placard or sign, and appropriate symbols may be used to supplement the placard or sign.

136.07.5 COMMUNICATIONS EQUIPMENT

1. General

- (1) The operator or pilot-in-command must ensure that a flight does not commence unless the communication and navigation equipment required under Subpart 7 of Part 136, is -
 - (a) approved and installed in accordance with the requirements applicable to them including the minimum performance standard and the operational and airworthiness requirements;
 - (b) installed in such manner that the failure of any single unit required for either communication or navigation purpose, or both, will not result in the inability to communicate or navigate safely on the route being flown;
 - (c) in an operable condition for the kind of operation being conducted.
- (2) Communication and navigation equipment minimum performance standards are those prescribed in the applicable NAM-TSO, unless different performance standards are prescribed. Communication and navigation equipment complying with design and performance specifications other than NAM-TSO on the date of commencement of the CARs, may remain in service, or be installed, unless additional requirements are prescribed in Subpart 7 of Part 136.

2. Radio equipment

- (1) The operator or pilot-in-command may not operate a free balloon unless it is equipped with radio equipment for the kind of operation being conducted.
- (2) Where two independent (separate and complete) radio systems are required, each system must have an independent antenna installation except that, where rigidly supported non-wire antennae or other antenna installations or equivalent reliability are used only one antenna is required.

4. Radio equipment for operations under VFR over routes navigated by reference to visual landmarks

The operator or pilot-in-command may not operate a free balloon under VFR over routes that can be navigated by reference to visual landmarks, unless it is

equipped with the radio equipment (communication and SSR transponder equipment (If fitted) necessary under normal operating conditions to fulfill the following:

- (1) communicate with appropriate ground stations;
- (2) communicate with appropriate air traffic service facilities from any point in controlled airspace within which flights are intended;
- (3) receive meteorological information; and
- (4) reply to SSR interrogations as required for the route being flown.

5. Communication and navigation equipment for operation under VFR over routes not navigated by reference to visual landmarks

- (5) The operator or pilot-in-command may not operate a free balloon under VFR over routes that cannot be navigated by reference to visual landmarks unless the free balloon is equipped with communication and navigation equipment in accordance with the requirements of air traffic services in the area(s) of operation but not less than -
 - (a) two independent radio communication systems necessary under normal operating conditions to communicate with an appropriate ground station from any point on the route including diversions;

136.08.1 ROUTES AND AREAS OF OPERATION

1. Adequate operations site

- (1) When defining operations site for the type of free balloon(s) and operation(s) concerned, an operator must take into account the following:
 - (a) An adequate operations site is an operations site which the operator considers to be satisfactory, taking account of the applicable operating conditions.
 - (b) The launching area must be level, free from sharp objects, and free from downwind obstacles. Authorization from the landowner must be granted. (balloons may be launched or landed from or in any unlicensed field)

2. Launch site operating minima-take off, en-route and landing

- (1) An operator may only fly a free balloon for commercial air transport purposes by day or night and the flight shall be carried out under Visual flight Rules (VFR).
- (2) The operator must specify in the operations manual referred to in TS 136.06.3 the conditions for take-off in terms of visibility and surface wind speed and the conditions for VFR flights.
- (3) Where there are no external fire extinguishers at the operations site, the operator shall provide the staff with an effective fire and rescue facility which can respond to a free balloon accident or incident pending the arrival of external emergency services.
- (4) For the purpose of item (1) “day” means the time from 30 minutes before

sunrise up to 30 minutes after sunset.

136.08.03 OPERATIONAL CONTROL

1. Approval of method of supervision

The Director shall give due consideration to:

- (1) Qualification for employment;
- (2) Training/examination/licenses;
- (3) Licence and qualification validity;
- (4) Competence of operations;
- (5) Personnel;
- (6) Supervisory staff;
- (7) Control, analysis and storage of records;
- (8) Flight documents and data;
- (9) Documents used for the preparation and execution of the flight;
- (10) Reports;
- (11) Analysis and retention of documents and records;
- (12) Quality control of EDP;
- (13) Documents storage periods - flight crew records;
- (14) Flight time and duty period records (flight crew
- (15) Documents storage periods - records for other operations personnel; and
- (16) Accident prevention and Safety Management System:
 - (a) Accident prevention ;
 - (b) Human factors;
 - (c) Accident prevention organisation ;
 - (d) Safety Management System; and
 - (e) Main aspects of the Safety Management System.

136.08.7 MASS AND BALANCE

1. Definitions

Any word or expression to which a meaning has been assigned in the Civil Aviation Act, 2016 and the Namibian Civil Aviation Regulations, ~~2001~~, bears, when used in this technical standard, the same meaning unless the context indicates otherwise, and -

“minimum structural landing mass” means the minimum permissible total free balloon mass upon landing under normal circumstances;

“maximum structural take off mass” means the maximum permissible total free balloon mass at the start of the flight and

“traffic load” means the total mass of passengers, and baggage and cargo, including any non-revenue load.

2. Loading,

The operator must specify, in the operations manual, the principles and methods involved in the loading and in the mass and balance system which comply with the provisions of CAR 136.08.7. This system must cover all types of intended

operations.

3. Mass values for crew

- (1) The operator or pilot-in-command must use the following mass values to determine the dry operating mass:
 - (a) Actual masses
- (2) The operator or pilot-in-command must correct the dry operating mass to account for any additional baggage.

4. Mass values for passengers and baggage

- (1) The operator or pilot-in-command must compute the mass of passengers and using either the actual weighed mass of each person and the actual weighed mass of baggage or the standard mass values specified in Tables 1 to 3 below except where the number of passenger spaces available is less than 6, when the passenger mass may be established by a verbal statement by or on behalf of each passenger or by estimation. The procedure specifying when to select actual or standard masses must be included in the operations manual.
- (2) If determining the actual mass by weighing, the operator or pilot-in-command must ensure that passengers' personal belongings and hand baggage are included. Such weighing must be conducted immediately prior to boarding and at an adjacent location.
- (3) If determining the mass of passengers using standard mass values, the standard mass values in Tables 1 and 2 below must be used. The standard masses include hand baggage and the mass of any infant carried by an adult on one passenger space. Infants occupying separate passenger spaces are to be considered as children for the purpose of this paragraph.
- (4) Mass values for passengers - 20 spaces or more
 - (a) Where the total number of passenger spaces available in a free balloon is 20 or more, the standard masses of male and female in Table 1 are applicable. As an alternative, in cases where the total number of passenger spaces available is 30 or more, the 'All Adult' mass values in Table 1 are applicable.
- (5) Mass values for passengers - 19 spaces or less

Table 1 : 19 or Less passengers

Passenger Seat	1-9	10-19
Male	96	92
Female	78	74
Children	35	35

- (a) Where the total number of passenger spaces available in a free balloon is

19 or less, the standard masses in Table 1 are applicable.

- (b) On flights where no hand baggage is carried in the cabin or where hand baggage is accounted for separately, 6 kg may be deducted from the above male and female masses. Articles such as an overcoat, an umbrella, a small handbag or purse, reading material or a small camera are not considered as hand baggage for the purpose of this paragraph.

Table 2: 20 or more spaces Passenger seats	20 and more		30 and more
	Male	Female	All adults
All flights	88kg	70kg	84kg
children	35 kg	35kg	35 kg

- (7) If the operator or pilot-in-command wishes to use standard mass values other than those contained in Tables 1 to 2 above, he or she must advise the Director of his or her reasons and obtain such approval in advance. After verification and approval by the Director of the results of the weighing survey, the revised standard mass values are only applicable to that operator. The revised standard mass values can only be used in circumstances consistent with those under which the survey was conducted. Where revised standard masses exceed those in Tables 1 to 2, then such higher values must be used.
- (8) On any flight identified as carrying a significant number of passengers whose masses, including hand baggage, are expected to exceed the standard passenger mass, the operator or pilot-in-command must determine the actual mass of such passengers by weighing or by adding an adequate mass increment.
- (9) If standard mass values for baggage are used and a significant number of passengers' baggage that is expected to exceed the standard baggage mass, the operator or pilot-in-command must determine the actual mass of such baggage by weighing or by adding an adequate mass increment.
- (10) The operator must ensure that a pilot-in-command is advised when a non-standard method has been used for determining the mass of the mass and balance documentation.

136.08.7.7 Mass and balance documentation

1. General

- (1) The operator must establish mass and balance documentation prior to each flight specifying the load and its distribution.

The mass and balance documentation must enable the pilot-in-command to determine by inspection that the load and its distribution is such that the mass and balance limits of the free balloon are not exceeded.

The PIC or person supervising the loading of the free balloon must confirm

by signature that the load and its distribution are in accordance with the mass and balance documentation.

Acceptance of the loading of the free balloon by the pilot-in-command, must be indicated by countersignature or equivalent.

- (2) The mass and balance documentation must contain the following information:
 - (a) The free balloon registration and type;
 - (b) the flight identification number and date;
 - (c) the identity of the pilot-in-command;
 - (d) the identity of the person who prepared the document;
 - (e) the dry operating mass of the free balloon;
 - (f) the mass of the fuel at take-off and the mass of trip fuel;
 - (g) the components of the load including passengers, baggage, cargo and ballast;
 - (h) the take-off mass, and minimum landing mass,
 - (i) the limiting mass values.

2. Last minute change

- (1) The operator must specify procedures for last minute changes to the load.
- (2) If any last-minute change occurs after the completion of the mass and balance documentation, this must be brought to the attention of the pilot-in-command and the last-minute change must be entered on the mass and balance documentation.

The maximum allowed change in the number of passengers or hold load acceptable as a last-minute change, must be specified in the operations manual.

If this number is exceeded, new mass and balance documentation must be prepared.

136.08.8 FUEL POLICY

(i) Contingency fuel

- (2) At the planning stage, not all factors which could have an influence on the fuel consumption for the planned flight can be foreseen. Therefore, contingency fuel is carried to compensate for items such as -
 - (a) deviations of an individual free balloon from the expected fuel consumption data;

- (b) deviations from forecast meteorological conditions; and
- (c) deviations from planned routings and/or cruising levels/altitudes.

136.08.10 FUEL SUPPLY

1. Fuel planning and management

- (1) The total quantity of fuel carried on board the balloon must be sufficient for the intended flight and must include a safe margin for emergency contingencies. The manner in which the amount is calculated and records and the minimum fuel remaining on landing must be stated in the technical log referred to in TS 136.06.7. and should be no less than 20% available fuel from a single cylinder to each burner
- (2) Fuel planning tables must be provided for all balloons. The tables must take account of the size of the balloon and the duration of the intended flight and should refer to the conditions for which the figures apply.

2. Monitoring fuel on board

- (1) The operator must ensure that there are means for ascertaining, before departure, that the amount of fuel on board meets the pilot-in-command's requirements. In flight there must be instructions for ensuring that if, at the point of intended landing, the amount of fuel calculated to remain unused is likely to become less than any minimum quantity specified, this fact becomes apparent at an early stage. Procedures for changing tanks and for isolating and evacuating the fuel system on landing must be stated.
- (2) Before signing the Technical Log Sector Record Page, the pilot-in-command must be satisfied that the correct quality and quantity of fuel is on board and that it has been loaded in accordance with instructions.

136.08. 14 CARRY-ON BAGGAGE

1. Procedures for stowing of carry-on baggage

Procedures established by an operator to ensure that carry-on baggage is adequately and securely stowed, must take account of the following:

- (1) Each item carried in the basket or gondola must be stowed only in a location that is capable of restraining it;

136.09.5 MAINTENANCE CONTROL MANUAL

1. General

The operator's maintenance management manual must contain details of the organisation structure, including:

- (1) The competent person responsible for the maintenance system;
- (2) The personnel responsible for planning, performing, supervising and

inspecting all maintenance to ensure -

- (a) that such maintenance is carried out on time to an approved standard so that the maintenance responsibility referred to in CAR 136.09.3 is satisfied; and
 - (b) the functioning of the quality assurance system referred to in CAR 136.03.7; and
- (3) The procedures to be followed to satisfy such maintenance responsibility and quality assurance functions.

2. Information to be contained in the manual

PART 0: GENERAL ORGANISATION

1. Corporate commitment by the Operator;
2. General information
 - Brief description of organisation
 - Relationship with other organisations
 - Fleet composition - Type of operation
3. Notification procedure to the Director regarding changes to the Operator's maintenance arrangements/locations/personnel/activities/approval
4. Maintenance Management Manual amendment procedures

PART I: MANAGEMENT

- Maintenance Management personnel :
- Accountable Manager
- Quality Manager
- Maintenance coordination
- Duties and responsibilities
- Organisation chart(s)
- Manpower resources and
- Training policy,

PART 2: QUALITY SYSTEM PROCEDURE

1. Maintenance quality policy, plan and audit procedures;
2. Monitoring of maintenance management activities
3. Monitoring the effectiveness of the maintenance programme
4. Monitoring that all maintenance is carried out by an organisation approved in terms of Part 145.
 - Free balloon maintenance
 - Components
5. Monitoring that all contracted maintenance is carried out in accordance with the contract, including sub-contractors used by the maintenance contractor;

6. Quality audit personnel.

PART L2: ADDITIONAL MAINTENANCE PROCEDURES

PART 3: CONTRACTED MAINTENANCE

1. Maintenance contractor selection procedure;
2. Detailed list of maintenance contractors;
3. Relevant technical procedures identified in the maintenance contract(s)

PART 4: OPERATORS'S MAINTENANCE PROCEDURES

1. Free balloon technical log utilization application;
2. Free balloon maintenance programme - Development and amendment;
3. Time and maintenance records, Responsibilities, Retention, Access;
4. Accomplishment and control of Airworthiness Directives, SB's & service instructions;
5. Analysis of the effectiveness of the maintenance programmes
6. Non-mandatory modification embodiment policy;
7. Major modification standards;
8. Defect reports:
 - Analysis
 - Liaison with Manufacturers and Regulatory Authorities
 - Deferred defect policy;
9. Engineering activity
10. Reliability programmes
 - Burner
 - Components;
11. Pre-flight Inspection
 - Preparation of the free balloon for flight
 - Control of refueling, quantity or quality
 - Control of launch site
12. Aircraft weighing
13. Flight test procedures
14. Sample of documents, Tags and Forms used; and
15. record and retain the details of their risk assessment process.

ANNEXURE A



REPUBLIC OF NAMIBIA NAMIBIA CIVIL AVIATION AUTHORITY

APPLICATION FOR THE ISSUING OF AN AIR OPERATOR CERTIFICATE APPLICATION FOR THE AMENDMENT OF AN AIR OPERATOR CERTIFICATE APPLICATION FOR THE RENEWAL OF AN AIR OPERATOR CERTIFICATE

Notes:

- (i) *An application for the issuing of an air operator certificate, or an amendment thereof, must comply with the provisions of CAR 136.02.2.*
- (ii) *An application for the renewal of an air operator certificate, must comply with the provisions of CAR 136.02.5.*
- (iii) *Section 1 must be completed in all cases.*
- (iv) *All other sections must be completed if applicable to the specific application.*
- (v) *The original application must be submitted to the Director: Civil Aviation.*
- (vi) *Where the required information cannot be furnished in the space provided, the information must be submitted as a separate memorandum and attached hereto.*
- (vii) *Please delete if not applicable.*

Mark the appropriate block

Application for the issuing of an air operator certificate
Application for the amendment of an air operator certificate
Application for the renewal of an air operator certificate

1. PARTICULARS REGARDING THE APPLICANT/HOLDER

1.1 Full name :	
1.2 Trade name if any	
1.3 Principle place of Bussiness :	1.4 Postal adress:

		Postal code		
1.5 Telephone number:		1.6 Telefax number :		
1.7 Cellular number		1.8 E-mail address:		
1.9 SITA code: if any		1.10 Telefax number		
1.11 Legal status of application/holder (individual/close corporation/operator's / trust other specify.				
1.12 Registration number in the case of a close corporation/operator's trust:				
1.13 Full particulars in respect of the individual/each responsible director/shareholder/member/office bearer				
Name	Position	Identity number	Nationality	Country of permanent residence
1.14 The application/holder declares hereby that the particulars provided in this application are true in every respect.				
Signature:				

2. APPLICATION FOR THE ISSUING OF AN AIR OPERATOR CERTIFICATE

2.1 description of the type(s) of operation(s) applied for:
2.2 Type(s) of free balloon(s) to be operated:
2.3 Nationality and registration mark(s) of the free balloon(s) to be operated:
2.4 Proposed area(s) of operation:
2.5 Attached documents: Mark the appropriate block Operations manual Proof of financial capability Maintenance management manual Free balloon maintenance programme Free Balloon technological log Maintenance arrangements between applicant and approved aircraft maintenance organisation Valid air service licence

3. APPLICATION FOR THE AMENDMENT OF AN AIR OPERATOR CERTIFICATE

3.1 Certificate number:	3.2 Expiry date:
3.3 Particulars of amendments(s) applied for :	
3.4 Attached documents: Mark the appropriate block Amendment to approved operations manual Proof of financial capability in respect of amendment Amended maintenance management manual Amendment to approved free balloon maintenance programme Amendment to approve free balloon technical log Maintenance arrangements between holder and approved aircraft maintenance organisation in respect of amendment.	

4. APPLICATION FOR THE RENEWAL OF AN AIR OPERATOR CERTIFICATE.

4.1 Certificate number:	4.2 Expiry date:
4.3 Description of the type(s) of operation(s) applied for:	
4.4 Type(s) of free balloon(s) to be operated:	
4.5 Nationality and registration mark(s) of the free balloon(s) to be operated:	
4.6 Proposed area(s) of operation:	
4.7 Attached documents: Mark the appropriate block	

Operations manual
Proof of financial capability
Maintenance management manual
Free Balloon maintenance programme
Free balloon technical log
Maintenance arrangements between holder and approved aircraft maintenance organisation Valid
Air Service Licence

ANNEXURE B



**REPUBLIC OF NAMIBIA
NAMIBIA CIVIL AVIATION AUTHORITY**

AIR OPERATOR CERTIFICATE

1. Certificate number:

2. Name of holder:

3. Principal place of business of holder:	4. Postal address of holder: Postal code:
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5. Type(s) of operation(s) authorised:	6. Type(s) of free balloon(s) authorised for operation
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7. Nationality and registration mark(s) of free balloon(s) authorised for operation:
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8. Area(s) of operation:

9. Conditions :

10 . Date issued:	1. 1 Expiry date:
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1.2 Date renewed:	1 . 3 Expiry date:
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14 . I hereby certify that the holder of this certificate has been duly certificated in accordance with Part 136 of the Namibian Civil Aviation Regulations, 2001.	
15 . Any attachment to this certificate which supplements its contents, forms an integral part hereof.	
Da te	Executive Director: Civil Aviation



NAMIBIA CIVIL AVIATION AUTHORITY

DESIGNATED EXAMINER (DE)

NAME..... LIC NO.

DESIGNATION NO.

1. Pursuant to the provisions of regulations 61.01.25 and 61.01.26(1), of the Namibian Civil Aviation Regulations, 2001. You are hereby designated as an examiner to conduct the following skill or proficiency tests:-
2. The foregoing privileges shall be exercised in respect of Namibian licensed flight crew.
3. This authorisation shall remain valid up to and including
4. This designation is a privilege and not a right. Consequently, this privilege may be withdrawn by the Executive Director: Civil Aviation at his or her discretion. This is not an employment contract, but a privileged to act on behalf of the Executive Director: Civil Aviation and therefore withdrawal of designation by the Executive Director: Civil Aviation does not affect your capacity to earn an income as a professional pilot.
5. It is an ICAO imperative that a training file must be kept for all NCAA inspectors. Although you are not an employee of the NCAA, you act in the interest of the Executive Director: Civil Aviation when performing duties as a designated examiner and therefore it is a requirement to maintain a training file of your qualifications and proficiencies separate from the NCAA's pilot file for you. These records must be kept up to date.

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EXECUTIVE DIRECTOR: CIVIL AVIATION

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DATE