



GOVERNMENT GAZETTE

OF THE

REPUBLIC OF NAMIBIA

N\$19.83

WINDHOEK - 22 August 1997

No. 1663

CONTENTS

Page

GENERAL NOTICE

No. 243	Proposed Civil Aviation Regulations: Part 91 - Rules of the Air and General Operating Rules: General Operating and Flight Rules	1
---------	---	---

General Notice

MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION

No. 243 1997

PROPOSED CIVIL AVIATION REGULATIONS :

PART 91 - RULES OF THE AIR AND GENERAL OPERATING

RULES : GENERAL OPERATING AND FLIGHT RULES

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

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

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

All the definitions for the proposed civil aviation regulations will be contained and published in Part 1. The definitions for each Part will however be published with each set of proposed regulations, to facilitate the interpretation thereof. The definitions associated with the proposed regulations on general operating and flight rules are set out in Schedule 2.

The Director : Civil Aviation invites all interested parties to comment on the proposed structure of the Civil Aviation Regulations, the proposed definitions associated with the proposed regulations, as well as the proposed regulations on General Operating and Flight Rules set out in Schedule 3. The proposed regulations represent Part 91 of the proposed structure.

The proposed regulations on General Operating and Flight Rules make provision for certain information to be contained in a document called Document NA-CATS-OPS 91. The compilation of the document does not form part of this project, but it is envisaged as a document that will contain all the technical standards regarding general operating and flight rules.

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

The Director : Civil Aviation

Ministry of Works, Transport and Communication

Department of Transport

Private Bag 12003

WINDHOEK

Attention : Mr Louis Lourens

Telephone : 208-2159

Fax : 238-884

Upon expiry of the aforementioned 90 day period, all comments which have been received will be evaluated for possible incorporation into the proposed regulations on General Operating and Flight Rules and if necessary, a workshop will be held to finalise the proposed regulations.

SCHEDULE 1
NAMIBIAN CIVIL AVIATION REGULATIONS STRUCTURE

<p>DEFINITIONS</p> <p>Part 1 Definitions</p> <p>PROCEDURES</p> <p>Part 11 Procedures for making regulations, issuing technical Standards and granting exemptions</p> <p>Part 12 Aviation accidents and incidents</p> <p>Part 13 Enforcement procedures</p> <p>AIRCRAFT</p> <p>Part 21 Certification procedures for products and parts</p> <p>Part 34 Engine Emissions</p> <p>Part 36 Noise certification</p> <p>Part 43 General maintenance rules</p> <p>Part 47 Aircraft registration and marking</p> <p>PERSONNEL</p> <p>Part 61 Pilot licensing</p> <p>Part 63 Flight engineer licensing</p> <p>Part 64 Cabin crew licensing</p> <p>Part 65 Air traffic service personnel licensing</p> <p>Part 66 Aircraft maintenance engineer licensing</p> <p>Part 67 Medical requirements</p> <p>RULES OF THE AIR AND GENERAL OPERATING RULES</p> <p>Part 91 General operating and flight rules</p> <p>Part 92 Conveyance of dangerous goods</p> <p>Part 98 Operation of powered paragliders</p> <p>Part 100 Operation of gyroplanes</p> <p>Part 101 Operation of unmanned balloons, kites, rockets, pilotless and model aircraft</p> <p>Part 102 Operation of free balloons and airships</p> <p>Part 103 Operation of microlight aeroplanes</p> <p>Part 104 Operation of gliders</p> <p>Part 105 Parachuting operations</p> <p>Part 106 Operation of hang gliders</p>	<p>CERTIFICATED AIRCRAFT OPERATORS AND OTHER FLIGHT OPERATIONS</p> <p>Part 121 Air transport operations - large aeroplanes</p> <p>Part 127 Air transport operations - helicopter</p> <p>Part 133 Helicopters external load operations</p> <p>Part 135 Air transport operations - small aeroplanes</p> <p>Part 137 Agricultural aircraft operations</p> <p>Part 138 Emergency medical services operations</p> <p>ORGANISATIONS</p> <p>Part 141 Aviation training organisations</p> <p>Part 145 Aircraft maintenance organisations</p> <p>Part 147 Design organisations</p> <p>Part 148 Manufacturing organisations</p> <p>Part 149 Aviation recreation organisations</p> <p>AERODROMES AND HELIPORTS</p> <p>Part 139 Licensing</p> <p>Part 139 General standards</p> <p>AIR TRAFFIC SERVICES</p> <p>Part 172 Airspace and air traffic services</p> <p>AERONAUTICAL INFORMATION AND RELATED SERVICES</p> <p>Part 174 Meteorological information services</p> <p>Part 175 Aeronautical information services</p> <p>ADMINISTRATION</p> <p>Part 183 General</p> <p>Part 185 Offences</p> <p>Part 187 Fees</p>
---	--

SCHEDULE 2

Definitions

In these regulations, unless the context otherwise indicates -

“accelerate-stop distance available” means the length of the take-off run available plus the length of stopway, if such stopway is declared available by the appropriate Authority and is capable of bearing the mass of the aeroplane under the prevailing operating conditions;

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

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

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

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

“aerodrome operating minima” means the limits of usability of an aerodrome for either take-off or landing, usually expressed in terms of visibility or runway visual range, decision altitude/height or minimum descent altitude/height and cloud conditions;

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

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

“aisle” means a longitudinal passageway between seats;

“all weather operations” means any take-off, en-route or landing operations in IMC and operated in accordance with IFR;

“alternate aerodrome for take-off” means an aerodrome to which a flight may proceed should the weather conditions at the aerodrome of departure preclude a return for landing;

“alternate aerodrome for landing” means an aerodrome specified in the flight plan to which a flight may proceed when it becomes inadvisable to land at the aerodrome of intended landing;

“amphibious aeroplane” means an aeroplane designed and constructed to take-off and land from land surfaces as well as water surfaces;

“appropriate authority” -

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

are performed by an institution, body or person contemplated in paragraph (a),

and which is recognised as such by the Commissioner;

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

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

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

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

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

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

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

“Document NA-CATS-OPS 91” means a document on the Namibian Civil Aviation Technical Standards relating to general operating and flight rules which is

published by the Director in terms of the Act;

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

- (a) crew members and crew member baggage;
- (b) catering and removable passenger service equipment; and
- (c) potable water and lavatory chemicals;

“elevated heliport” means a heliport located on a raised structure on land;

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

“extended range operations” means flights conducted over a route that contain a point further than one hour flying time at the approved one-engine inoperative cruise speed, under standard conditions in still air, from an adequate aerodrome;

“extended range operations with twin engine aircraft” means flights conducted with a twin engine aircraft, over a route that contain a point further than one hour flying time at the approved one-engine inoperative cruise speed, under standard conditions in still air, from an adequate aerodrome;

“flight recorder” means a flight data recorder and a cockpit voice recorder;

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

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

“general aviation operation” means any type of aviation operation other than a commercial air transport operation;

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

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

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

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

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

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

“instrument approach procedure” means a series of predetermined manoeuvres by reference to flight instruments with specified protection from obstacles from the initial approach fix, or where applicable, from the beginning of a defined arrival route, to a point from which a landing can be completed and thereafter, if a landing is

not completed, to a position at which holding or en-route obstacle clearance criteria apply;

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

“landing distance available” means the length of the runway which is declared available by the appropriate authority and suitable for the ground run of an aeroplane landing;

“low visibility procedures” means procedures applied at an aerodrome for the purpose of ensuring safe operations during Category II and Category III approaches and low visibility take-offs;

“low visibility take-off” means a take-off where the runway visual range is less than 400 metres;

“Mach number” means the ratio of true airspeed to the speed of sound;

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

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

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

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

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

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

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

“operational flight plan” means the operator’s plan for the safe conduct of the flight based on considerations of aircraft performance, other operating limitations and relevant expected conditions on the route to be followed and at the aerodromes concerned;

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

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

“runway visual range” means the runway visual range over which the pilot of an aeroplane on the centre line of a runway can see the runway surface markings or the lights delineating the runway or identifying its centre line;

“seaplane” means an aeroplane designed and constructed to take off from and land on water surfaces only;

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

“Selcal watch” and “Selcal callsign” means a selective calling system to effect communication with aircraft by the use of a specific code which is detected by apparatus in the aircraft;

“simulator” means -

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

approved by the Director for a specific purpose;

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

“take-off distance available” means -

- (a) in the case of an aeroplane, the length of the take-off run available plus the length of the clearway available; or

- (b) in the case of a helicopter, the distance from the point of lift-off to the nearest obstacle in the take-off path, of 50 feet or higher;

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

“take-off run available” means the length of runway which is declared available by the appropriate authority and suitable for the ground run of an aeroplane taking off;

“total cosmic radiation” means the total of ionizing and neutron radiation of galactic and solar origin;

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

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

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

SCHEDULE 3
LIST OF REGULATIONS

SUBPART 1 : GENERAL PROVISIONS

- 91.01.1 Applicability
- 91.01.2 Authority of pilot-in-command
- 91.01.3 Authority of personnel to taxi aeroplanes
- 91.01.4 Search and rescue information
- 91.01.5 Information on emergency and survival equipment carried
- 91.01.6 Method of carriage of persons
- 91.01.7 Admission to flight deck
- 91.01.8 Unauthorised carriage
- 91.01.9 Portable electronic devices
- 91.01.10 Endangering safety
- 91.01.11 Preservation of documents

SUBPART 2 : FLIGHT CREW

- 91.02.1 Composition of flight crew
- 91.02.2 Crew member emergency duties
- 91.02.3 Crew member responsibilities
- 91.02.4 Recency
- 91.02.5 Crew members at duty stations
- 91.02.6 Laws, regulations and procedures
- 91.02.7 Duties of pilot-in-command regarding flight preparation
- 91.02.8 Duties of pilot-in-command regarding flight operations

SUBPART 3 : DOCUMENTATION AND RECORDS

- 91.03.1 Documents and records to be carried on board
- 91.03.2 Aircraft flight manual

- 91.03.3 Aircraft checklists
- 91.03.4 Air traffic service flight plan
- 91.03.5 Flight folio
- 91.03.6 Fuel and oil record
- 91.03.7 Certificate of release to service
- 91.03.8 Flight recorder records

SUBPART 4 : INSTRUMENTS AND EQUIPMENT

- 91.04.1 Use of instruments and equipment by pilot
- 91.04.2 Circuit protection devices
- 91.04.3 Aircraft operating lights
- 91.04.4 Flight, navigational and associated equipment for aircraft operated under VFR
- 91.04.5 Flight, navigational and associated equipment for aircraft operated under IFR
- 91.04.6 Additional equipment for single-pilot operation in accordance with IFR
- 91.04.7 Mach number indicator
- 91.04.8 Radio altimeter
- 91.04.9 Equipment for operations in icing conditions
- 91.04.10 Flight recorder
- 91.04.11 Foil data recorder
- 91.04.12 Cockpit voice recorder
- 91.04.13 Flight data recorder
- 91.04.14 Seats, seat safety belts, harnesses and child restraint devices
- 91.04.15 Stowage of articles, baggage and cargo
- 91.04.16 Standard first-aid kit
- 91.04.17 First-aid oxygen
- 91.04.18 Supplemental oxygen in the case of pressurised aircraft
- 91.04.19 Supplemental oxygen in the case of non-pressurised aircraft
- 91.04.20 Crew protective breathing equipment

- 91.04.21 Hand fire extinguishers
- 91.04.22 Crash axes and crowbars
- 91.04.23 Marking of break-in points
- 91.04.24 Megaphones
- 91.04.25 Emergency lighting
- 91.04.26 Automatic emergency locator transmitter
- 91.04.27 Life jackets and other flotation devices
- 91.04.28 Life rafts and survival equipment for extended over-water flights
- 91.04.29 Survival equipment
- 91.04.30 Seaplanes, amphibians and amphibious helicopters

SUBPART 5 : COMMUNICATION AND NAVIGATION EQUIPMENT

- 91.05.1 Communication equipment
- 91.05.2 Navigation equipment

SUBPART 6 : RULES OF THE AIR

Division One : Flight rules

- 91.06.1 Landing on roads
- 91.06.2 Dropping objects, spraying or dusting
- 91.06.3 Picking up objects
- 91.06.4 Towing
- 91.06.5 Operation of vehicle- or vessel-towed aircraft
- 91.06.6 Proximity and formation flights
- 91.06.7 Right of way
- 91.06.8 Following line features
- 91.06.9 Aircraft speed
- 91.06.10 Lights to be displayed by aircraft
- 91.06.11 Taxi rules
- 91.06.12 Operation on and in the vicinity of aerodrome
- 91.06.13 Signals

- 91.06.14 Water operations
- 91.06.15 Reporting position
- 91.06.16 Mandatory radio communication in controlled airspace
- 91.06.17 Mandatory radio communication in advisory airspace
- 91.06.18 Compliance with air traffic control clearance and instructions
- 91.06.19 Prohibited areas
- 91.06.20 Restricted areas

Division Two : Visual flight rules

- 91.06.21 Visibility and distance from cloud
- 91.06.22 Special VFR weather minima
- 91.06.23 Responsibility to ascertain whether VFR flight is permitted

Division Three : Instrument flight rules

- 91.06.24 Compliance with IFR
- 91.06.25 Aircraft equipment
- 91.06.26 Change from IFR flight to VFR flight
- 91.06.27 IFR procedures

Division Four : Aircraft on other than scheduled international air services

- 91.06.28 Foreign military aircraft
- 91.06.29 Identification and interception of aircraft

Division Five : Air traffic rules

- 91.06.30 Air traffic service procedures
- 91.06.31 Priority

Division Six : Heights and instrument approach and departure procedures

- 91.06.32 Minimum heights
- 91.06.33 Semi-circular rule

91.06.34 Standard instrument approaches to and departures from aerodromes

SUBPART 7 : FLIGHT OPERATIONS

- 91.07.1 Routes and areas of operation
- 91.07.2 Minimum flight altitudes
- 91.07.3 Use of aerodromes
- 91.07.4 Helicopters landings and take-offs
- 91.07.5 Aerodrome operating minima
- 91.07.6 Threshold crossing height
- 91.07.7 Pre-flight selection of aerodromes
- 91.07.8 Planning minima for IFR flights
- 91.07.9 Meteorological conditions
- 91.07.10 VFR operating minima
- 91.07.11 Mass and balance
- 91.07.12 Fuel and oil supply
- 91.07.13 Refuelling or defuelling with passengers on board
- 91.07.14 Smoking in aircraft
- 91.07.15 Instrument approach and departure procedures
- 91.07.16 Noise abatement procedures
- 91.07.17 Submission of air traffic service flight plan
- 91.07.18 Seats, safety belts and harnesses
- 91.07.19 Passenger seating
- 91.07.20 Passenger briefing
- 91.07.21 Emergency equipment
- 91.07.22 Illumination of emergency exits
- 91.07.23 Use of supplemental oxygen
- 91.07.24 Approach and landing conditions
- 91.07.25 Commencement and continuation of approach
- 91.07.26 In-flight simulation of emergency situations
- 91.07.27 Turning helicopter rotors

91.07.28 Starting of engines

SUBPART 8 : LOW-VISIBILITY OPERATIONS

- 91.08.1 Aerodrome operating minima
- 91.08.2 General operating rules for low-visibility operations
- 91.08.3 Aerodrome considerations for low-visibility operations
- 91.08.4 Training and qualifications for low-visibility operations
- 91.08.5 Operating procedures for low-visibility operations
- 91.08.6 Minimum equipment for low-visibility operations

SUBPART 9 : PERFORMANCE OPERATING LIMITATIONS

- 91.09.1 General provisions
- 91.09.2 Helicopter operating limitations
- 91.09.3 Helicopter performance classification
- 91.09.4 Aeroplane performance classification

SUBPART 10 : MAINTENANCE

- 91.10.1 General provisions

SUBPART 1**GENERAL****Applicability**

91.01.1 (1) Subject to the provisions of subregulation (2), this Part shall apply to -

- (a) aircraft operated within Namibia;
- (b) aircraft registered in Namibia and operated internationally;
- (c) persons acting as flight crew members of aircraft registered in Namibia; and
- (d) persons who are on board an aircraft operated under this Part.

(2) Additional rules to, and exemptions from, the provisions of this Part, are prescribed, in respect of -

- (a) the conveyance of dangerous goods, in Part 92;
- (b) the operation of powered paragliders, in Part 98;
- (c) the operation of gyroplanes, in Part 100;
- (d) the operation of unmanned balloons, kites, rockets, remotely piloted aircraft and model aircraft, in Part 101;

- (e) the operation of free balloons and airships, in Part 102;
- (f) the operation of microlight aeroplanes, in Part 103;
- (g) the operation of gliders, in Part 104;
- (h) parachuting operations, in Part 105;
- (i) the operation of hang gliders, in Part 106;
- (j) large aeroplanes engaged in commercial air transport operations, in Part 121;
- (k) helicopters engaged in commercial air transport operations, in Part 127;
- (l) helicopters engaged in external-load operations, in Part 133;
- (m) small aeroplanes engaged in commercial air transport operations, in Part 135;
- (n) aircraft engaged in agricultural operations, in Part 137;
and
- (o) aircraft engaged in emergency medical services operations, in Part 138.

Authority of pilot-in-command

91.01.2 All persons on board in an aircraft shall obey all lawful commands given by the pilot-in-command of the aircraft for the purpose of securing the safety of such aircraft and of persons or property carried therein.

Authorisation of personnel to taxi aeroplanes

91.01.3 No owner or operator of an aeroplane shall permit the taxiing of, and no person shall taxi, an aeroplane on the movement area of an aerodrome unless the person at the controls of the aeroplane -

- (a) is the holder of a valid pilot licence; or
- (b) has received instruction in the taxiing of an aeroplane from, and has been declared competent to taxi an aeroplane by, the holder of a flight instructor rating or, in the case of a foreign aircraft, a person authorised by an appropriate authority; and
- (c) is conversant with the aerodrome layout, routes, signs, markings, lighting, air traffic service signals and instructions, phraseology and procedures, if required, and is able to conform to the standards required for safe aeroplane movements at such aerodrome.

Search and rescue information

91.01.4 The pilot-in-command or, in the case of an aircraft engaged in commercial air transport operations, the operator, shall ensure that all essential informa-

tion concerning the search and rescue services in the area over which it is intended that the aircraft will be flown, is available on board the aircraft.

Information on emergency and survival equipment carried

91.01.5 (1) The owner or operator of an aircraft 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 aircraft.

(2) The minimum information to be contained in the list referred to in subregulation (1) shall be as prescribed in Document NA-CATS-OPS 91.

Method of carriage of persons

91.01.6 No person shall be in any part of an aircraft 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 aircraft -

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

Admission to flight deck

91.01.7 (1) No person other than the assigned flight deck crew shall be

carried on the flight deck of a Namibian registered aircraft except with the permission of the pilot-in-command.

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

(3) Any person carried on the flight deck shall be made familiar with the applicable procedures.

Unauthorised carriage

91.01.8 No person shall secrete himself, herself or cargo on board an aircraft.

Portable electronic devices

91.01.9 (1) Subject to the provisions of subregulation (2), no owner, operator or pilot-in-command of an aircraft or person shall permit the operation of, or operate on board the aircraft during flight time, any portable electronic device which may adversely affect the performance of the systems and equipment of the aircraft.

(2) The provisions of subregulation (1) shall not apply to -

- (a) a heart pacemaker;
- (b) a hearing aid;
- (c) a portable voice recorder;
- (d) an electric shaver; or

(e) any other portable electronic device, the operation of which -

(i) in the case of an aircraft engaged in a commercial air transport operation, the operator; or

(ii) in the case of an aircraft engaged in an operation other than a commercial air transport operation, the pilot-in-command,

has determined will not cause interference with the systems and equipment of the aircraft in which it is to be used.

(3) A portable electronic device referred to in subregulation (2) (c), (d) or (e) shall not be used by any person during the critical phases of flight.

Endangering safety

91.01.10 No person shall, through any act or omission -

(a) endanger the safety of an aircraft or person therein; or

(b) cause or permit an aircraft to endanger the safety of any person or property.

Preservation of documents

91.01.11 The owner or operator of an aircraft who is required to retain any of the documents for the specified period referred to in Subpart 3, shall retain such

documents for such specified period irrespective of the fact that such owner or operator, before the expiry of such period, ceases to be the owner or operator of the aircraft.

SUBPART 2

FLIGHT CREW

Composition of flight crew

91.02.1 (1) The number and composition of the flight crew shall not be less than the number and composition specified in the certificate of airworthiness, the aircraft flight manual referred to in regulation 91.03.2 or any other document associated with the certificate of airworthiness.

(2) The flight crew members shall -

- (a) be competent and qualified to perform the duties assigned to them; and
- (b) hold the appropriate valid flight crew member licences and ratings.

(3) The flight crew shall include at least one member who holds a valid radiotelephony operator licence or an equivalent document issued by an appropriate authority, authorising such member to operate the type of radio transmitting equipment to be used.

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

Flight crew member emergency duties

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

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

Flight crew member responsibilities

91.02.3 (1) No person shall act as a flight crew member of an aircraft -

- (a) while under the influence of any drug having a narcotic effect;
- (b) within the hours prescribed in Document NA-CATS-FCL, following scuba diving by such flight crew member;
- (c) within 48 hours following blood donation by such flight crew member;
- (d) if the flight crew member knows or suspects that he or she is suffering from or, having due regard to the circumstances of the flight to be undertaken, is likely to

suffer from fatigue to such an extent that it may endanger the safety of the aircraft or its occupants; or

- (e) if the flight crew member is in any doubt of being able to accomplish his or her assigned duties on board the aircraft.

(2) No flight crew member shall -

- (a) consume any alcohol less than twelve hours prior to commencing standby for flight duty or flight duty, which flight duty shall be deemed to commence at the specified reporting time, if applicable;
- (b) commence flight duty while the concentration of alcohol in any specimen of blood taken from any part of his or her body, is more than 0,00 gram per 100 millilitres; or
- (c) consume alcohol during flight duty or whilst on standby, or within eight hours after an accident or reportable incident involving the aircraft, unless the accident or incident was not related to his or her duties.

(3) Subject to the provisions of subregulation (4), no person shall act as a flight deck crew member of an aircraft if, prior to each flight, the flight time exceeds, or is likely to exceed, the permissible aggregate of -

- (a) in the case of an operation other than an operation referred to in paragraph (e), irrespective of whether such

operation is carried out under a licence issued in terms of the Air Services Act, 1949 (Act 51 of 1949) -

- (i) 400 hours, during the preceding 90 days;
 - (ii) 700 hours, during the preceding six months; or
 - (iii) 1 000 hours, during the preceding 12 months;
- (b) in the case of flying instructors conducting *ab initio* training, six hours within one calendar day;
- (c) as part of a multi-pilot crew for a flight to be undertaken wholly or partly under instrument flight rules -
- (i) 120 hours, during the preceding 30 days;
 - (ii) 300 hours, during the preceding 90 days; or
 - (iii) 1 000 hours, during the preceding 12 months;
- (d) as the sole pilot of an aircraft for a flight to be undertaken wholly or partly under instrument flight rules -
- (i) 100 hours, during the preceding 30 days; or
 - (ii) 1 000 hours, during the preceding 12 months; or
- (e) in the case of an operation carried out in terms of Part 121, Part 127, Part 135 or Part 138 -

- (i) eight hours, during the preceding 24 hours;
 - (ii) 32 hours, during the preceding seven days;
 - (iii) 100 hours, during the preceding 30 days; or
 - (iv) 1 000 hours, during the preceding 3265 days.
- (4) If a flight deck crew member expects his or her cumulative flight hours projected for a particular operation, to exceed the appropriate limit -
- (a) referred to in subregulation (3); or
 - (b) specified in the flight and duty scheme of an operator carrying out operations in terms of Part 121, Part 127, Part 135 or Part 138,

the flight deck crew member shall inform the operator accordingly.

Recency

91.02.4 (1) A pilot shall not act as pilot-in-command of an aircraft carrying passengers by day, unless such pilot has, within the 90 days immediately preceding the flight, carried out either by day or by night at least three take-offs and three landings in the same class and category of aircraft as that in which such flight is to be undertaken, or in a simulator.

(2) A pilot shall not act as pilot-in-command of an aircraft carrying passengers by night, unless the pilot has, within the 90 days immediately preceding the flight, carried out at least three take-offs and three landings by night, in the

same class and category of aircraft as that in which such flight is to be undertaken, or in a simulator.

(3) A pilot shall not act as pilot-in-command of an aircraft on an instrument approach to an aerodrome in IMC unless the pilot has, within the 90 days immediately preceding such approach, by means of an instrument approach procedure or procedures established by the Director or an appropriate authority -

- (a) executed at least two actual approaches with reference to flight instruments only;
- (b) executed at least two approaches either under actual or simulated conditions with reference to flight instruments only; or
- (c) executed at least one actual approach with reference to flight instruments only and one approach in a simulator for the purpose of practising instrument approach procedure; or
- (d) undergone the appropriate skill test as prescribed in Part 61.

Flight crew members at duty stations

91.02.5 (1) In the case of a multi-crew aircraft -

- (a) each flight crew member shall be at his or her assigned station or seat, properly secured by all seat belts and

shoulder harnesses provided, during take-off and landing and whenever deemed necessary by the pilot-in-command in the interests of aviation safety;

- (b) each flight deck crew member shall keep his or her seat belt fastened while at his or her assigned station, during phases of the flight, other than the phases referred to in subparagraph (a);
- (c) each flight deck crew member required to be on flight deck duty, shall be at his or her assigned station, during take-off and landing;
- (d) all flight deck crew members on flight deck duty shall remain at their assigned stations during all phases of the flight other than the phases referred to in subparagraph (c): Provided that -
 - (i) a flight deck crew member may leave his or her assigned station, in the course of the performance of his or her duties with regard to the operation of the aircraft or for physiological needs; and
 - (ii) at least one suitably qualified pilot remains at the controls of the aircraft at all times;
- (e) the pilot-in-command or, where applicable, the operator shall ensure that flight crew members do not perform any activities during critical phases of the flight

other than those required for the safe operation of the aircraft.

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

Laws, regulations and procedures

91.02.6 (1) In an emergency situation which endangers the aircraft, flight 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 of the State within or over the territory of which the aircraft is operated.

(2) If a pilot-in-command deviates from any law, regulation or operational procedure in an emergency situation referred to in subregulation (1), he or she shall notify the appropriate authority of the State within or over the territory of which the deviation occurs, of such deviation without delay.

(3) If the appropriate authority of the State within or over the territory of which the deviation occurs, requests the pilot-in-command to submit a report on such deviation, the pilot-in-command shall submit the report -

- (a) within the period specified by such appropriate authority, to such appropriate authority; and

- (b) within 10 days from the date on which such report is requested by such appropriate authority, to the Director.

Duties of pilot-in-command regarding flight preparation

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

- (a) the aircraft is airworthy;
- (b) the instruments and equipment required for the particular type of operation to be undertaken, are installed and are serviceable, except as provided for in the MEL, if any;
- (c) the aircraft has been released to service in accordance with Part 43;
- (d) the mass of the aircraft does not exceed the maximum certificated mass calculated from the performance information provided in the aircraft flight manual referred to in regulation 91.03.2, in terms of which the operating limitations referred to in Subpart 9 are complied with;
- (e) the load carried by the aircraft is properly secured, fit to be conveyed in accordance with Part 92 and is so distributed that the centre of gravity is within the limits prescribed in the aircraft flight manual referred to

in regulation 91.03.2;

- (f) in respect of aeroplanes operated in terms of Part 121 or Part 135, an operational flight plan which complies with the criteria in the operations manual, is completed for each intended flight;
- (g) an air traffic service flight plan referred to in regulation 91.03.4, has been properly completed and filed with the appropriate air traffic service unit, if such flight plan is required in terms of regulation 91.03.4;
- (h) all the documents and forms required to be carried on board, current maps, charts and associated documents, if any, are carried;
- (i) a check has been completed indicating that the operating limitations referred to in Subpart 9 will not be exceeded;
- (j) the search and rescue information, referred to in regulation 91.01.4, is available on board;
- (k) the requirements in respect of fuel, oil, oxygen, minimum safe altitudes, aerodrome operating minima and availability of alternate aerodromes are complied with;
- (l) the aerodrome operating minima are not less than the operating minima of the aerodrome being operated to or from, established by the authority of State in which

the aerodrome is located, unless such authority approves lower aerodrome operating minima;

- (m) the status of the aircraft and the relevant airborne systems appropriate for the specific flight to be undertaken;
- (n) the external surfaces are clear of any deposit which might adversely affect the performance or controllability of the aircraft, unless otherwise permitted in the aircraft flight manual referred to in regulation 91.03.2;
- (o) according to the information available to him or her, the weather at the aerodrome and, in respect of an aeroplane, the condition of the runway intended to be used, will not prevent a safe take-off and departure or a safe landing at the destination aerodrome or alternate aerodrome, as applicable;
- (p) the RVR or visibility in the take-off direction of the aircraft is equal to, or better than, the applicable minimum;
- (q) the flight crew members are properly qualified for the specific operation to be undertaken;
- (r) the status of the visual and non-visual facilities is sufficient prior to commencing a low visibility take-off, or a Category II or III approach as specified in Document NA-CATS-OPS 91, if such approaches are planned;

- (s) an adequate and suitable aerodrome as specified in Document NA-CATS-OPS 91, is available for take-off, en-route and destination, should it become inadvisable to continue to or land at the destination aerodrome; and
 - (t) the flight crew members are not apparently incapacitated as a result of injury, sickness, fatigue or the consumption of alcohol or drugs having a narcotic effect.
- (2) The pilot-in-command of an aircraft shall -
- (a) not commence a flight unless he or she has ascertained through the relevant NOTAM, AIC, AIP or AIP Supplement that the aerodromes, navigation aids and communication facilities are adequate for the manner in which the flight is to be conducted;
 - (b) prior to take-off from an aerodrome at which an air traffic service unit is in operation, determine through the aeronautical information services available from the unit or any other reliable source, that the unserviceability of any aerodrome, navigation aids or communication facilities required for such flight, will not prejudice the safe conduct of the flight; and
 - (c) advise an air traffic service unit, as soon as it is practical to do so, of any inadequate facilities encountered in the course of operations.

(3) Where a load and trim sheet is required in terms of these regulations, the load and trim sheet shall be acceptable to and countersigned by the pilot-in-command before a flight commences: Provided that if the load and trim sheet is submitted to the pilot-in-command by electronic data transfer, commencement of the flight shall be deemed to be the acceptance thereof by such pilot-in-command.

(4) Before take-off and landing, and whenever deemed necessary in the interest of aviation safety, the pilot-in-command shall ensure that all flight crew, passengers, equipment and baggage is properly secured and all exit and escape paths are unobstructed.

Duties of pilot-in-command regarding flight operations

91.02.8 (1) The pilot-in-command of an aircraft shall be responsible for -

- (a) the operation and safety of the aircraft while he or she is in command;
- (b) the conduct and safety of flight crew members and passengers carried; and
- (c) the maintenance of discipline by all persons on board.

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

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

- (b) to disembark any person or cargo which in his or her opinion, represents a potential hazard to the safety of the aircraft, persons or property.

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

- (a) when and how oxygen equipment is to be used, if the carriage of oxygen is required;
- (b) the location and use of life jackets or equivalent individual flotation devices, where the carriage thereof is required;
- (c) the location and method of opening emergency exits;
- (d) when seat belts are to be fastened;
- (e) when smoking is prohibited; and
- (f) when portable electronic devices may be used.

(4) The pilot-in-command of an aircraft shall -

- (a) ensure that the pre-flight inspection has been carried out, and that the checklists, and where applicable, the flight deck procedures and other instructions regarding the operation of the aircraft, the limitations contained in the aircraft flight manual referred to in regulation 91.03.2, or equivalent certification document, are

fully complied with at the appropriate times during a flight;

- (b) decide whether or not to accept an aircraft with unserviceabilities allowed by the CDL or MEL, where applicable;
- (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 use and, when an emergency arises, shall 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 aircraft are secured in their seats by means of the seat belts or shoulder harnesses provided;
- (e) when replanning, whilst in flight, to proceed along a route or to a destination other than the route or destination originally planned, shall amend the operational flight plan, if such a plan was required in terms of subregulation (1)(f), in accordance with the requirements as prescribed in Document NA-CATS-OPS 91.
- (f) report any accident or incident involving the aircraft in accordance with Part 12;

- (g) report any dangerous goods accident or incident involving the aircraft in accordance with Part 92;
 - (h) if the aircraft is endangered in flight by a near collision with any other aircraft or object, faulty air traffic procedure or lack of compliance with applicable procedures by an air traffic service unit or a flight crew member or a failure of air traffic service facilities, submit an air traffic service incident report in accordance with regulation 12.02.2;
 - (i) 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
 - (j) 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.
- (5) The pilot-in-command of the aircraft shall ensure that -
- (a) breathing oxygen is available to flight crew members and passengers if flights in a non-pressurised aircraft are contemplated above 10 000 feet up to 12 000 feet in excess of 60 minutes, or above 12 000 feet; and

- (b) breathing oxygen is carried in sufficient quantities for all flights at such altitudes where a lack of oxygen might result in impairment of faculties of flight crew members, or harmfully affect passengers.
- (6) The requirements for the carriage and use of oxygen shall be as prescribed in Document NA-CATS-OPS 91.
- (7) The pilot-in-command of the aircraft shall not -
 - (a) require a flight crew member to perform any duties during a critical phase of the flight, except those duties required for the safe operation of the aircraft;
 - (b) permit any activity during a critical phase of the flight which could distract any flight 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 aerodrome in the event of a flight crew member becoming unable to perform any essential duties as a result of fatigue, sickness or lack of oxygen.
- (8) The pilot-in-command of an aircraft, or in his or her absence, the owner or operator thereof, shall report any act of unlawful interference with the operation of the aircraft, or the authority of the pilot-in-command -

- (a) if the act of unlawful interference occurs within
Namibia, to the Director; or
- (b) if the act of unlawful interference occurs within or over
the territory of a foreign State, to the appropriate au-
thority of the State and the Director.

SUBPART 3
DOCUMENTATION AND RECORDS

Documents to be carried on board

91.03.1 The owner or operator of an aircraft shall ensure that the following documents, or certified true copies thereof, are carried on board the aircraft on each individual flight:

- (a) If the aircraft is engaged in an international flight -
 - (i) the certificate of registration;
 - (ii) the certificate of airworthiness;
 - (iii) the appropriate licence of each flight crew member;
 - (iv) the journey logbook or general declaration;
 - (v) the aircraft radio station licence;
 - (vi) if passengers are carried, the passenger manifest, unless the information is included in the general declaration referred to in subparagraph (iv);
 - (vii) if cargo is carried, a manifest and detailed declaration of the cargo;
 - (viii) the certificate of release to service;

- (ix) the navigation log when a navigator is carried;
 - (x) the aircraft flight manual referred to in regulation 91.03.2, or an equivalent document;
 - (xi) the mass and balance report;
 - (xii) the flight folio;
 - (xiii) the MEL, if applicable;
 - (xiv) the noise certificate, if such certificate has been issued for the type of aircraft; and
 - (xv) a list of visual signals for use by intercepting and intercepted aircraft;
- (b) if the aircraft is engaged in a domestic flight -
- (i) the certificate of registration;
 - (ii) the certificate of airworthiness;
 - (iii) the appropriate licence of each member flight crew;
 - (iv) the aircraft radio station licence;
 - (v) the certificate of release to service;

- (vi) the aircraft flight manual referred to in regulation 91.03.2 or an equivalent document;
- (vii) the mass and balance report;
- (viii) the flight folio;
- (ix) the MEL, if applicable;
- (x) the noise certificate, if such certificate has been issued for the type of aircraft; and
- (xi) the list of visual signals for use by intercepting and intercepted aircraft.

Aircraft flight manual

91.03.2 (1) The owner or operator of an aircraft shall keep a current approved aircraft flight manual for each aircraft of which he or she is the owner or operator.

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

Aircraft checklists

91.03.3 The owner or operator of an aircraft shall, where applicable, establish and make available to the flight crew and other personnel in his or her employ needing the information, a checklist system for the aircraft, to be used by such flight

crew and other personnel for all phases of the operation under normal, abnormal and emergency conditions.

Air traffic service flight plan

91.03.4 (1) The owner or operator of an aircraft shall ensure that an air traffic service flight plan is completed if required in terms of subregulation (4).

(2) The items to be contained in the air traffic service flight plan referred to in subregulation (1) shall be as prescribed in Document NA-CATS-OPS 91.

(3) The air traffic service flight plan shall be filed with the appropriate air traffic service unit and such unit shall be responsible for transmitting such air traffic service flight plan to all air traffic service units concerned with the flight.

(4) The air traffic service flight plan shall be filed in respect of -

(a) all flights to be conducted in controlled or advisory airspace: Provided that this requirement shall not apply in respect of -

(i) a local flight;

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

(iii) a VFR flight entering or departing from an aerodrome traffic zone or control zone, from or to an

unmanned aerodrome and where no other controlled or advisory airspace will be entered during the flight;

- (b) an international flight;
- (c) all flights undertaken in terms of a licence issued in terms of the Air Services Act, 1949; and
- (d) a flight for which alerting action is required.

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

(6) Unless otherwise authorised by the responsible air traffic service unit, an air traffic service flight plan for a flight to be conducted in controlled or advisory airspace, shall be filed at least 30 minutes before departure or, if filed during flight while outside controlled or advisory airspace for a flight to be conducted in such airspace, it shall be filed with the responsible air traffic service unit at least 10 minutes before the aircraft is estimated to reach the intended point of entry into the controlled or advisory airspace.

(7) The pilot-in-command of an aircraft shall ensure that all changes which become applicable to an air traffic service flight plan before departure or in flight, are reported, as soon as practicable, to the responsible air traffic service unit.

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

(9) Where an air traffic service unit is not in operation at the aerodrome of intended landing a report shall be submitted to an air traffic service unit, by the quickest means of communication available, immediately before or after landing, in respect of a flight for which an air traffic service flight plan was submitted and not as yet closed.

(10) Subject to the provisions of subregulation (11), the pilot-in-command shall ensure that the aircraft adheres to the current air traffic service flight plan filed for a controlled flight, unless a request for a change has been made and accepted by the air traffic control unit responsible for the controlled airspace in which the aircraft is operating, or unless an emergency situation arises which necessitates immediate action, in which event the responsible air traffic control unit shall, as soon as circumstances permit, be notified of the action taken and that such action was taken under emergency authority.

(11) In the event of a controlled flight inadvertently deviating from its current air traffic service flight plan, the following action shall be taken:

- (a) If the aircraft is off track, action shall be taken forthwith to adjust the heading of the aircraft to regain track as soon as practicable;
- (b) if the average true airspeed at cruising level between reporting points varies, or is expected to vary, from

that given in an air traffic service flight plan by approximately five per cent of the true airspeed, the responsible air traffic service unit shall be so informed;

- (c) if the estimated time at the next applicable reporting point, flight information regional boundary, or aerodrome of intended landing, whichever comes first, is found to be in error in excess of three minutes from that notified to the responsible air traffic service unit, a revised estimated time shall be notified to such air traffic service unit as soon as possible; or
- (d) if the aircraft deviates from its altitude, action shall be taken forthwith to correct the altitude of the aircraft.

Flight folio

91.03.5 (1) The owner or operator of a Namibian registered aircraft shall ensure that the aircraft carries a flight folio or any other similar document which contains the information as prescribed in Document NA-CATS-OPS 91, at all times.

(2) The flight folio 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 maintenance being undertaken on the aircraft, the entry shall be certified by the person taking responsibility for the maintenance performed.

(5) The owner or operator shall retain the flight folio for a period of five years calculated from the date of the last entry therein.

Fuel and oil record

91.03.6 (1) The owner or operator of an aircraft shall maintain fuel and oil records for each flight undertaken by the aircraft under the control of such owner or operator.

(2) The pilot-in-command of the aircraft shall enter the fuel and oil records referred to in subregulation (1) in the flight folio.

Certificate of release to service

91.03.7 (1) No owner or operator of an aircraft shall operate -

(a) a Namibian registered aircraft without holding a valid certificate of release to service signed by the holder of an appropriately rated aircraft maintenance engineer licence or aircraft maintenance organisation approval;
or

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

(2) The owner or operator shall -

(a) ensure that one copy of the certificate of release to service or equivalent certificate is carried on board the

aircraft to which it relates and, in the case of a Namibian registered aircraft, a second copy shall be filed at the normal station of the aircraft; and

- (b) retain the certificate of release to service for a period of 12 months calculated from the date of issue of such certificate of release to service.

Flight recorder records

91.03.8 (1) The owner or operator of an aircraft on which a flight recorder is carried, shall -

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

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

- (a) save the recording for the period of operating time as required by subregulations (1)(a) and (b): Provided that for the purpose of testing and maintaining a flight data recorder one hour of the oldest recorded material at the time of testing may be erased;
 - (b) keep a recording of at least one representative flight made within the preceding 12 months which includes a take-off, climb, cruise, descent, approach and landing, together with a means of identifying the recording with the flight to which it relates; and
 - (c) keep a document which represents the information necessary to retrieve and convert the stored data into engineering units.
- (3) The owner or operator of an aircraft on which a flight recorder is carried shall, within a reasonable time after being requested to do so by the Director or an appropriate authority, produce any recording made by such flight recorder which is available or has been preserved.
- (4) A cockpit voice recorder recording may be used for purposes other than for the investigation of an accident or incident only with the consent of all the flight crew members concerned.
- (5) The flight data recorder recordings may be used for purposes other than the investigation of an accident or incident which is subject to mandatory reporting, only when such recordings are -

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

SUBPART 4

INSTRUMENTS AND EQUIPMENT

Use of instruments and equipment by pilot

91.04.1 (1) Instruments on an aircraft which are used by a pilot shall be so arranged in such a manner that the pilot can see their indications readily from his or her station, with the minimum practicable deviation from the position and line of vision which he or she normally assumes when looking forward along the flight path.

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

(3) An aircraft shall be equipped with means for indicating the adequacy of the power being supplied to the required flight instruments.

Circuit protection devices

91.04.2 (1) No owner or operator of an aircraft in which fuses are used, shall operate the aircraft unless there are spare fuses available for use in flight equal to at least ten per cent or three, whichever is the greater, of the number of fuses of each rating required for complete circuit protection, which spare fuses shall be accessible to the flight crew during flight.

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

(3) No person shall deactivate a circuit breaker in flight other than in accordance with the aircraft flight manual referred to in regulation 91.03.2.

Aircraft operating lights

91.04.3 (1) No owner or operator of an aircraft shall operate an aircraft by day unless the aircraft is equipped with -

- (a) an anti-collision light system;
- (b) lighting supplied from the electrical system of the aircraft to provide adequate illumination for all instruments and equipment used by the flight crew essential for the safe operation of such aircraft;
- (c) lighting supplied from the electrical system of the aircraft to provide illumination in all passenger compartments, if any; and
- (d) an intrinsically safe electric torch for each required flight crew member readily accessible to such flight crew member when seated at his or her designated seat.

(2) No owner or operator of an aeroplane shall operate the aeroplane by night unless such aeroplane is equipped with -

- (a) the instruments and equipment referred to in subregulation (1);
- (b) navigation or position lights;

(c) two landing lights or a single light having two separately energised filaments; and

(d) in the case of an aeroplane with a maximum certificated mass exceeding 5 700 kg, two parachute flares.

(3) No owner or operator of a helicopter shall operate the helicopter by night unless such helicopter is equipped with -

(a) in the case of a flight by night within 10 nautical miles, a light or lights providing adequate illumination both forward and downward to facilitate safe approaches, landings and take-offs; or

(b) in the case of a flight by night of more than 10 nautical miles, two landing lights or a single light having two separately energised filaments which are capable of providing adequate illumination both forward and downward to facilitate safe approaches, landings and take-offs.

(4) No owner or operator of a seaplane or an amphibious aircraft shall operate the seaplane or amphibious aircraft unless it is equipped with -

(a) the instruments and equipment referred to in subregulations (1), (2) or (3), as the case may be; and

(b) when operating on water by night, display lights to conform with the International Regulations for Preventing Collisions at Sea.

(5) The navigation lights to be displayed by aircraft by night, on the water or on the manoeuvring area of an aerodrome, shall be as prescribed in regulation 91.06.10.

Flight, navigational and associated equipment for aircraft operated under VFR

91.04.4 No owner or operator of an aircraft shall operate the aircraft in accordance with VFR, unless such aircraft is equipped with -

- (a) a magnetic compass;
- (b) an accurate time-piece showing the time in hours, minutes, and seconds;
- (c) a sensitive pressure altimeter with a subscale setting, calibrated in hectopascal, adjustable for any barometric pressure setting likely to be encountered during flight;
- (d) an airspeed indicator; and
- (e) if to be operated by night, a chart holder in an easily readable position which can be illuminated.

Flight, navigation and associated equipment for aircraft operated under IFR

91.04.5 No owner or operator of an aircraft shall operate the aircraft in accordance with IFR, unless such aircraft is equipped with -

- (a) a magnetic compass;

- (b) an accurate time-piece showing the time in hours, minutes and seconds;
- (c) a sensitive pressure altimeter with subscale settings, calibrated in hectopascal, adjustable for any barometric pressure setting likely to be encountered during flight;
- (d) an airspeed indicator system with heated pitot tube or equivalent means for preventing malfunctioning due to either condensation or icing, including a warning indicator of pitot heater failure;
- (e) a vertical-speed indicator;
- (f) a stabilised direction indicator;
- (g) a turn-and-bank indicator, or a turn coordinator incorporating a slip indicator;
- (h) an attitude indicator;
- (i) a rate-of-climb and descent indicator;
- (j) a means of indicating, in the cockpit or on the flight deck, the outside air temperature in degrees Celsius;
- (k) a chart holder in an easily readable position which can be illuminated for operations by night.

Additional equipment for single-pilot operation in accordance with IFR

91.04.6 No owner or operator of an aircraft shall conduct single-pilot IFR operations in the aircraft unless such aircraft has been certificated for such operations and is equipped with -

- (a) a stability augmentation or automatic flight control system with at least altitude hold and heading mode; and
- (b) a headset with boom microphone or equivalent and a transmit button on the control wheel, joy stick or cyclic stick.

Mach number indicator

91.04.7 No owner or operator of an aircraft with speed limitations expressed in terms of Mach number, shall operate the aircraft unless such aircraft is equipped with a Mach number indicator.

Radio altimeter

91.04.8 No owner or operator of a helicopter shall operate the helicopter on a flight over water at a distance from land corresponding to more than 10 minutes at normal cruise speed, unless such helicopter is equipped with a radio altimeter with an audio voice warning or other means operating below a preset height and with a visual warning capable of operating at a height selectable by the pilot.

Equipment for operations in icing conditions

91.04.9 (1) No owner or operator of an aircraft shall operate the aircraft in forecast or actual icing conditions unless such aircraft is certificated and equipped to operate in icing conditions.

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

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

Flight recorder

91.04.10 (1) The owner or operator of a Namibian registered aircraft which is required to be equipped with a flight recorder in terms of regulation 91.04.12 or 91.04.13, shall ensure that the flight recorder complies with the specifications as prescribed in Document NA-CATS-OPS 91.

(2) There shall be an aural or visual means for preflight checking to determine that the flight recorder is operating properly.

(3) The flight recorder shall not be switched off during flight.

(4) Each flight recorder installed in an aircraft shall be located in such a manner that maximum practicable protection is provided, in order that, in the event of an accident or incident, the recorded data may be recovered in a preserved and intelligible state.

(5) Where a flight recorder is installed, it shall not -

- (a) be a source of danger in itself;
- (b) prejudice the proper functioning of any essential service; and
- (c) in any way reduce the serviceability or airworthiness of the aircraft in which it is installed,

even if the flight recorder fails to function.

(6) The owner or operator of the aircraft shall ensure that retrieving the recorded data from the storage medium shall be readily possible.

(7) The parameters of the flight recorder shall be determined within the ranges, accuracies and recording intervals as prescribed in Document NA-CATS-OPS 91.

(8) Each flight recorder container installed in the aircraft shall -

- (a) be bright orange or bright yellow;
- (b) have reflective tape affixed to the external surface to facilitate its location under water; and
- (c) have an approved underwater location device on or adjacent to each container which is secured in such a manner that the device is not likely to be separated from the container during crash impact: Provided that only

one such device shall be required when the cockpit voice recorder and the flight data recorder required under this Part are installed adjacent to each other in such a manner that they are not likely to be separated during crash impact.

- (9) The owner or operator of the aircraft shall -
- (a) copy and check the data on the flight recorder every six months, for the purpose of ensuring that such flight recorder is serviceable; and
 - (b) record and retain the results of such check for a period of five years calculated from the date of such check.

Foil data recorder

91.04.11 The owner or operator of a Namibian registered aircraft which is required to be equipped with a flight recorder in terms of regulation 91.04.12 or 91.04.13, shall, if the flight recorder is a foil data recorder, replace the foil data recorder with a digital flight recorder before or on 1 July 1999.

Cockpit voice recorder

- 91.04.12** (1) No owner or operator shall operate -
- (a) an aeroplane with a maximum certificated mass exceeding 5 700 kilograms, classified for operation in the transport category, and to which an individual certifi-

cate of airworthiness was first issued on or after 1 January 1987;

- (b) an aeroplane with a maximum certificated mass exceeding 27 000 kilograms, to which an individual certificate of airworthiness was first issued on or after 1 January 1987; or
- (c) a turbo-engine aeroplane to which an individual certificate of airworthiness was first issued before 1 January 1987, which is an aeroplane with a maximum certificated mass exceeding 27 000 kilograms, and is of a type of which the prototype was certified by an appropriate authority after 30 September 1969; or
- (d) a helicopter with a maximum certificated mass exceeding 7 000 kilograms, to which an individual certificate of airworthiness was first issued on or after 1 January 1987,

unless such aeroplane or helicopter is equipped with a cockpit voice recorder which complies with the specifications referred to in regulation 91.04.10(1).

(2) The cockpit voice recorder shall record, with reference to a time scale -

- (a) voice communications transmitted from or received on the flight deck or in the cockpit by radio;

- (b) the aural environment of the flight deck or cockpit, including without interruption, the audio signals received from each microphone in use;
 - (c) voice communications of flight deck crew members on the flight deck or in the cockpit using the interphone system of the aircraft, if installed;
 - (d) voice or audio signals identifying navigation or approach aids introduced into a headset or speaker;
 - (e) voice communications of flight deck crew members on the flight deck or in the cockpit using the public address system of the aircraft, if installed; and
 - (f) in the case of a helicopter referred to in subregulation (1)(d) and which is not required to be equipped with a flight data recorder, the parameters necessary to determine main rotor speed.
- (3) The cockpit voice recorder shall -
- (a) be capable of retaining information recorded during at least the last 30 minutes of the aircraft's operation;
 - (b) start automatically to record prior to the aircraft moving under its own power and continue to record, until the termination of the flight when the aircraft is no longer capable of moving under its own power; and

- (c) if possible, start to record the cockpit checks prior to engine start at the beginning of the flight, until the cockpit checks immediately following engine shutdown at the end of the flight.
- (4) The cockpit voice recorder may be combined with a flight data recorder referred to in regulation 91.04.13.
- (5) An aircraft may commence a flight with the cockpit voice recorder inoperative: Provided that -
 - (a) the aircraft shall not take-off from an aerodrome where repairs or replacements to such cockpit voice recorder can be made;
 - (b) the aircraft does not exceed six further consecutive flights with the cockpit voice recorder unserviceable;
 - (c) not more than 48 hours have elapsed since the cockpit voice recorder became unserviceable; and
 - (d) any flight data recorder required to be carried, is operative, unless the flight data recorder is combined with a cockpit voice recorder.

Flight data recorder

91.04.13 (1) No owner or operator of an aircraft specified in Document NA-CATS-OPS 91, shall operate the aircraft unless such aircraft is equipped with

the appropriate flight data recorder as prescribed in Document NA-CATS-OPS 91.

(2) The flight data recorder shall be capable of retaining the data recorded during at least -

- (a) in the case of an aeroplane, the last 25 hours of its operation; or
- (b) in the case of a helicopter, the last 10 hours of its operation.

(3) The data obtained from a flight data recorder shall be obtained from aircraft sources which enable accurate correlation with information displayed to the flight crew.

(4) The flight data recorder shall start automatically to record the data prior to the aircraft being capable of moving under its own power and shall stop automatically after the aircraft is incapable of moving under its own power.

(5) An aircraft may commence a flight with the flight data recorder inoperative: Provided that -

- (a) the aircraft shall not depart from an aerodrome where repairs or replacements to such flight data recorder can be made;
- (b) the aircraft does not exceed six further consecutive flights with the flight data recorder unserviceable;
- (c) not more than 48 hours have elapsed since the flight

data recorder became unserviceable; and

- (d) any cockpit voice recorder required to be carried, is operative, unless the cockpit voice recorder is combined with the flight data recorder.

Seats, seat safety belts, harnesses and child restraint devices

91.04.14 (1) No owner or operator of an aircraft shall operate the aircraft unless such aircraft is equipped, as applicable, with -

- (a) a seat or berth for each person who is aged two years or more;
- (b) a safety belt with or without a diagonal shoulder strap, or a safety harness, for use in each passenger seat for each passenger who is aged two years or more;
- (c) a restraining belt for use in each passenger berth;
- (d) a child restraint device for each passenger who is less than two years of age;
- (e) a safety harness for each flight deck crew member seat, incorporating a device which will automatically restrain the occupant's torso in the event of rapid deceleration; and
- (f) a safety harness for each cabin crew member seat:

Provided that a safety belt with one diagonal shoulder strap is permitted if the fitting of a safety harness is not reasonably practical.

(2) Seats for cabin crew members shall, where possible, be located near a floor-level emergency exit: Provided that if the number of required cabin crew members exceeds the number of floor-level emergency exits, the additional cabin crew member seats required shall be located such that a cabin crew member may best be able to assist passengers in the event of an emergency evacuation: Provided further that such seats shall be forward or rearward facing within 15° of the longitudinal axis of the aircraft.

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

(4) All safety harnesses and safety belts shall have a single point release.

Stowage of articles, baggage and cargo

91.04.15 No owner or operator of an aircraft shall operate the aircraft unless all articles, baggage and cargo carried on board, except those items in use by either the flight crew or by passengers, if such use is not prohibited by the pilot-in-command in the interest of the safety of the aircraft or its occupants, are placed -

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

- (b) in stowages designed to prevent movement likely to cause injury or damage.

Standard first-aid kit

91.04.16 (1) No owner or operator of an aircraft shall operate the aircraft unless such aircraft is equipped with an appropriate first-aid kit as prescribed in Document NA-CATS-OPS 91.

(2) The owner or operator shall carry out periodical inspections of the first-aid kits to ensure that, as far as practicable, the contents thereof are in a condition necessary for their intended use.

(3) The supplies in the standard first-aid kit shall be replenished at regular intervals, in accordance with instructions contained on their labels, or as circumstances require.

First-aid oxygen

91.04.17 (1) No owner or operator of an aircraft in respect of which the carriage of a cabin crew member is required in terms of this Part, shall operate the aircraft unless such aircraft is equipped with the appropriate supply of first-aid oxygen prescribed in Document NA-CATS-OPS 91.

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

Supplemental oxygen in the case of pressurised aircraft

91.04.18 (1) No owner or operator of a pressurised aircraft shall operate

the aircraft unless such aircraft is equipped with the supplemental oxygen as prescribed in Document NA-CATS-OPS 91.

(2) The conditions, rules, requirements, procedures or standards for supplemental oxygen shall be as prescribed in Document NA-CATS-OPS 91.

Supplemental oxygen in the case of non-pressurised aircraft

91.04.19 (1) No owner or operator of a non-pressurised aircraft shall operate the aircraft at altitudes above 10 000 feet and up to 12 000 feet for longer than 60 minutes, or above 12 000 feet, unless such aircraft is equipped with the supplemental oxygen as prescribed in Document NA-CATS-OPS 91.

(2) The conditions, rules, requirements, procedures or standards for supplemental oxygen shall be as prescribed in Document NA-CATS-OPS 91.

Flight crew protective breathing equipment

91.04.20 (1) No owner or operator of a pressurised aeroplane shall operate the aeroplane on or after 1 January 2000, or an unpressurised aeroplane with a maximum certificated mass exceeding 5 700 kilograms and a maximum approved passenger seating configuration of more than 19 seats, at altitudes above 12 000 feet, unless such aeroplane -

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

(b) has sufficient portable protective breathing equipment

to protect the eyes, nose and mouth of all cabin crew members required to be carried in terms of this Part and to provide breathing gas for a period of at least 15 minutes; and

- (c) if no cabin crew member is carried, is equipped with portable protective breathing equipment to protect the eyes, nose and mouth of one member of the flight deck crew and to provide breathing gas for a period of at least 15 minutes.

(2) The supply for protective breathing equipment may be provided by the supplemental oxygen referred to in regulation 91.04.18 or 91.04.19.

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

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

(5) Additional, easily accessible portable protective breathing equipment shall be provided and located at, or adjacent to, the hand fire extinguishers referred to in regulation 91.04.21: Provided that where the fire extinguisher is located inside a cargo compartment, the protective breathing equipment shall be stowed outside, but adjacent to, the entrance to such compartment.

(6) Protective breathing equipment, while in use, shall not prevent communication where required.

Hand fire extinguishers

91.04.21 No owner or operator of an aircraft shall operate the aircraft unless such aircraft is equipped with the appropriate hand fire extinguishers as prescribed in Document NA-CATS-OPS 91.

Crash axes and crowbars

91.04.22 (1) No owner or operator of an aeroplane with a maximum certificated mass exceeding 5 700 kilograms or a maximum approved passenger seating configuration of more than nine seats, shall operate the aeroplane unless such aeroplane is equipped with at least one crash axe or crowbar located on the flight deck.

(2) If the maximum approved passenger seating configuration is more than 200 seats, an additional crash axe or crowbar shall be carried in the aeroplane and located in or near the most rearward galley area.

Marking of break-in points

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

Megaphones

91.04.24 (1) No owner or operator of an aeroplane with a maximum approved passenger seating configuration of more than 50 seats, or a helicopter with a maximum approved passenger seating configuration of more than 19 seats, and which is carrying one or more passengers, shall operate the aeroplane or helicopter unless

such aeroplane or helicopter is equipped with the appropriate portable battery-powered megaphones as prescribed in Document NA-CATS-OPS 91.

(2) The conditions, rules, requirements, procedures or standards for battery-powered megaphones shall be as prescribed in Document NA-CATS-OPS 91.

Emergency lighting

91.04.25 (1) No owner or operator of an aircraft with a maximum approved passenger seating configuration of more than 19 seats, shall operate the aircraft unless such aircraft is equipped with the appropriate emergency lighting system as prescribed in Document NA-CATS-OPS 91.

(2) The conditions, rules, requirements, procedures or standards for emergency lighting shall be as prescribed in Document NA-CATS-OPS 91.

Automatic emergency locator transmitter

91.04.26 (1) No owner or operator of -

- (a) an aircraft to be operated on extended flights over water or over areas where search and rescue would be especially difficult;
- (b) an aeroplane with a maximum certificated mass exceeding 5 700 kilograms or a maximum approved passenger seating configuration of more than 9 seats; or

- (c) a helicopter with a maximum approved passenger seating configuration of more than 19 seats,

shall operate such aircraft unless it is equipped with an automatic emergency locator transmitter.

(2) The owner or operator shall ensure that the automatic emergency locator transmitter -

- (a) is attached to the aircraft in such a manner that, in the event of a crash, the probability of such automatic emergency locator transmitter transmitting a detectable signal, is maximised, and the probability of such automatic emergency locator transmitter being damaged, is minimised; and
- (b) complies with the specifications, and is capable of transmitting on the frequencies, as prescribed in Document NA-CATS-OPS 91.

Life jackets and other flotation devices

91.04.27 No owner or operator of -

- (a) an aeroplane other than an aircraft referred to in paragraphs (b) and (c), shall operate the aeroplane -
 - (i) when flying over water and at a distance of more than 50 nautical miles from the shore, in the case of the aeroplane not capable of continuing the

flight to an aerodrome with the critical power-unit becoming inoperative at any point along the route or any planned diversion; or

- (ii) when taking off or landing at an aerodrome where the take-off or approach path is so disposed over water that in the event of an incident, there would be a likelihood of a ditching,

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

- (b) a seaplane or an amphibious aeroplane shall operate the seaplane or amphibious aeroplane unless such seaplane or amphibious aeroplane is equipped with -

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

- (ii) life jackets, other than the life jackets referred to

in subparagraph (i), for 20 per cent of the number of persons on board such seaplane or amphibious aeroplane, located in the passenger compartment near the emergency exits and readily accessible;

(c) a helicopter, shall operate the helicopter over water beyond autorotative distance from land, other than only for take-off and initial climb, or final approach and landing, unless -

(i) each person on board is wearing a life jacket containing a survivor locator light; and

(ii) such helicopter is equipped with -

(aa) an individual infant flotation device containing a locator survival light for use by each infant on board, stowed in a position easily accessible for the person in which care the infant is; and

(bb) flotation equipment to ensure a safe ditching: Provided that in the case of aerial spraying operations over water, the owner or operator may apply to the Director for an exemption in terms of Part 11.

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

91.04.28 (1) No owner or operator of an aircraft shall operate the aircraft over water at a distance equivalent to -

- (a) 120 minutes at normal cruising speed or 400 miles, whichever is the lesser, away from land, if such aircraft has four engines;
- (b) 90 minutes at normal cruising speed or 300 miles, whichever is the lesser, away from land, if such aircraft has three turbine engines; or
- (c) 30 minutes at normal cruising speed or 100 miles, whichever is the lesser, away from land, in the case of aircraft other than the aircraft referred to in paragraph (a) or (b),

unless such aircraft is equipped with life rafts sufficient to accommodate all persons on board.

(2) The conditions, rules, requirements, procedures or standards for the life rafts and survival radio equipment for such extended over water flights, shall be as prescribed in Document NA-CATS-OPS 91.

Survival equipment

91.04.29 (1) No owner or operator of an aircraft shall operate the aircraft over areas where search and rescue would be especially difficult, unless such aircraft

is equipped with the appropriate survival equipment as prescribed in Document NA-CATS-OPS 91.

(2) The conditions, rules, requirements, procedures or standards for the survival equipment shall be as prescribed in Document NA-CATS-OPS 91.

Seaplanes, amphibious aeroplanes and amphibious helicopters

91.04.30 No owner or operator of a seaplane, amphibious aeroplane or amphibious helicopter shall operate the seaplane, amphibious aeroplane or amphibious helicopter on water, unless it is equipped with -

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

SUBPART 5
COMMUNICATION AND NAVIGATION EQUIPMENT

Communication equipment

91.05.1 (1) Except with the prior written approval of the Director, no owner or operator of an aircraft shall operate the aircraft, unless such aircraft is equipped with 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 for communication on the aeronautical emergency frequency 121.5 MHZ.

(3) The radio communication equipment installed in the aircraft shall be of a type as prescribed in Document NA-CATS-OPS 91.

(4) The installation, bonding and screening of the radio communication equipment shall be in accordance with the requirements as prescribed in Document NA-CATS-OPS 91.

Navigation equipment

91.05.2 (1) No owner or operator of an aircraft shall operate the aircraft unless such aircraft is equipped with navigation equipment enabling it to proceed in accordance with its flight plan, the prescribed RNP types and the appropriate air traffic service requirements: Provided that the provisions of this regulation shall not apply to flights operated in accordance with VFR, if such flights can be accomplished by visual reference to landmarks.

(2) The aircraft shall be equipped with sufficient navigation equipment to ensure that, in the event of the failure of one item of equipment at any stage of the flight, the remaining equipment enables such aircraft to proceed with such flight.

(3) No person shall operate an aircraft in airspace where minimum navigation performance specifications apply, unless the aircraft is equipped with navigation equipment which complies with the minimum navigation performance specifications as prescribed in Document NA-CATS-OPS 91, in the form of regional supplementary procedures.

(4) In an aircraft required to be operated by two pilots, the navigation equipment referred to in subregulation (3) shall be visible and usable by each pilot seated at his or her duty station.

(5) For unrestricted operation in airspace where minimum navigation performance specifications apply, an aircraft shall be equipped with two independent long-range navigation systems.

(6) For operation in airspace where minimum navigation performance specifications apply along notified special routes, an aircraft shall be equipped with one long-range navigation system, unless otherwise specified.

SUBPART 6
RULES OF THE AIR
DIVISION ONE : FLIGHT RULES

Landing on roads

91.06.1 No pilot shall use a public road as a place of landing or take-off in an aircraft, except -

- (a) in the case of an emergency involving the safety of the aircraft or its occupants;
- (b) for the purpose of saving human lives; or
- (c) when involved in civil defence or law-enforcement operations:

Provided that at all times reasonable care is taken for the safety of others with due regard to the prevailing circumstances.

Dropping objects, spraying or dusting

91.06.2 Except in an emergency or unless granted special permission by the Director, no article shall be dropped from an aircraft in flight other than -

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

Picking up objects

91.06.3 The pilot-in-command of an aircraft in flight shall not permit objects to be picked up, except -

- (a) with the prior written approval of the Director; or
- (b) if licensed to do so under the Air Services Act, 1949.

Towing

91.06.4 The pilot-in-command of an aircraft in flight shall not permit anything to be towed by the aircraft, except -

- (a) with the prior written approval of the Director; or
- (b) if licensed to do so under the Air Services Act, 1949.

Operation of vehicle- or vessel-towed aircraft

91.06.5 (1) Except with the prior written approval of the Director and subject to such conditions as he or she may impose, an aircraft which is intended, for purposes of flight, to be towed by a vehicle or vessel travelling on the surface or to be moored on the surface, shall not -

- (a) be flown higher than 150 feet above the surface on which the towing vehicle or vessel is travelling or to which such aircraft is moored;

- (b) be flown closer than five nautical miles from the boundary of an aerodrome; or
- (c) take-off from, land on or be flown above any public road.

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

Proximity and formation flights

91.06.6 No pilot shall operate an aircraft -

- (a) in such proximity to other aircraft so as to create a collision hazard;
- (b) in formation flight, except by arrangement with the pilot-in-command of each aircraft in the formation; or
- (c) in information flight while carrying passengers for commercial purposes.

Right of way

91.06.7 (1) An aircraft which has the right-of-way, shall maintain its heading and speed, but nothing in these rules shall relieve the pilot-in-command of an aircraft from the responsibility of taking such action as will best avert collision.

(2) An aircraft which is obliged, by the rules prescribed in this

Subpart, to keep out of the way of another aircraft, shall avoid passing over or under the other aircraft, or crossing ahead of such aircraft, unless passing well clear.

(3) When two aircraft are approaching head-on or approximately so and there is danger of collision, each aircraft shall alter its heading to the right.

(4) When two aircraft are converging at approximately the same level, the aircraft which has the other aircraft on its right, shall give way, except in the following circumstances:

- (a) Power-driven heavier-than-air aircraft shall give way to airships, gliders and balloons;
- (b) airships shall give way to gliders and balloons;
- (c) gliders shall give way to balloons;
- (d) power-driven aircraft shall give way to aircraft which are -
 - (i) seen to be towing other aircraft or objects;
 - (ii) carrying an underslung load or are engaged in winching operations; and
 - (iii) being towed or tethered.

(5) An aircraft which is being overtaken has the right-of-way and the overtaking aircraft, whether climbing, descending or in horizontal flight, shall keep out of the way of the overtaken aircraft by altering its heading to the right,

and no subsequent change in the relative positions of the two aircraft shall absolve the overtaking aircraft from its obligation until such aircraft is entirely past and clear: Provided that where a right-hand circuit is being followed at an aerodrome, the overtaking aircraft shall alter its heading to the left.

(6) An aircraft in flight or operating on the ground or water, shall give way to other aircraft landing or on final approach to land.

(7) (a) When two or more heavier-than-air aircraft are approaching an aerodrome for the purpose of landing, the aircraft at the higher level shall give way to the aircraft at the lower level, but the latter aircraft shall not take advantage of this rule to cut in front of another aircraft which is on final approach to land, or to overtake such aircraft.

(b) Notwithstanding the provisions of paragraph (a), power-driven heavier-than-air aircraft shall give way to gliders.

(8) An aircraft about to take-off, shall not attempt to do so until there is no apparent risk of collision with other aircraft.

(9) An aircraft which is aware that another aircraft is compelled to land, shall give way to such aircraft.

(10) For the purposes of this regulation, an overtaking aircraft is an aircraft which approaches another aircraft from the rear on a line forming an angle of less than 70 degrees with the plane of symmetry of the latter aircraft, and will therefore be in such a position with reference to the other aircraft, that by night it

should be unable to see either of the other aircraft's wingtip navigation lights.

Following line features

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

Aircraft speed

91.06.9 (1) No person shall, outside controlled airspace and between 1 000 feet above the surface and flight level 100, fly an aircraft at an indicated air speed of more than 250 knots.

(2) Unless otherwise authorised or required by an air traffic service unit, no person shall fly an aircraft within a control zone or an aerodrome traffic zone at an indicated air speed of more than -

(a) 160 knots, in the case of a reciprocating-engine aircraft; or

(b) 200 knots, in the case of a turbine-powered aircraft:

Provided that if the minimum safe indicated air speed for a particular flight is greater than the maximum indicated air speed prescribed in this regulation, the aircraft may be flown at the minimum safe indicated air speed.

Lights to be displayed by aircraft

91.06.10 The lights which have to be displayed by aircraft by night, on water or on the manoeuvring area of an aerodrome, shall be as prescribed in NA-CATS-OPS 91.

Taxi rules

91.06.11 (1) Aircraft which are landing or taking off, shall be given right of way by other aircraft and by vehicles.

(2) An aircraft shall, after landing, unless otherwise authorised or instructed by an air traffic service unit, move clear of the runway in use, as soon as it is safely possible to do so.

(3) A vehicle which is towing an aircraft shall be given right of way by vehicles and by other aircraft which are not landing or taking off.

(4) An aircraft shall be given right of way by a vehicle which is not towing an aircraft.

(5) An aircraft or vehicle which is obliged by the provisions of this regulation to give right of way to another aircraft, shall, if necessary in the circumstances in order to do so, reduce its speed or stop.

(6) If danger of collision exists between an aircraft or vehicle and another aircraft or vehicle, such of the following procedures as may be appropriate in the circumstances, shall be applied:

- (a) When the two are approaching head-on or nearly head-on, each shall turn to the right;
- (b) when one is overtaking the other, the one which is overtaking shall keep out of the way of the other by turning to the right, and no subsequent change in the relative positions of the two shall absolve the one which is overtaking from this obligation, until it is finally past and clear of the other;
- (c) subject to the provisions of subregulation (2), when the two are converging, the one which has the other on its right, shall give way to the other and shall avoid crossing ahead of the other unless passing well clear of it.

(7) A vehicle moving along a runway or taxiway, shall as far as practicable keep to the right side of the runway or taxiway.

(8) When an aircraft is being towed, the person in charge of the towing vehicle shall be responsible for compliance with the provisions of this regulation.

(9) Nothing in this regulation shall relieve the pilot-in-command of an aircraft or the person in charge of a vehicle, from the responsibility for taking such action as will best aid to avert collision.

Operation on and in the vicinity of aerodrome

91.06.12 (1) The pilot-in-command of an aircraft operated on or in the

vicinity of an aerodrome, shall be responsible for compliance with the following rules:

- (a) Observe other aerodrome traffic for the purpose of avoiding collision;
- (b) conform with or avoid the pattern of traffic formed by other aircraft in operation;
- (c) make all turns to the left when approaching for a landing and after taking off, unless otherwise instructed by an air traffic service unit, or unless a right hand circuit is in force: Provided that a helicopter may, with due regard to other factors and when it is in the interest of safety, execute a circuit to the opposite side;
- (d) land and take-off, as far as practicable, into the wind unless otherwise instructed by an air traffic service unit;
- (e) fly across the aerodrome or its environs at a height of not less than 2 000 feet above the level of such aerodrome: Provided that if circumstances require such pilot-in-command to fly at a height of less than 2 000 feet above the level of the aerodrome, he or she shall conform with the traffic pattern at such aerodrome; and
- (f) taxi in accordance with the ground control procedures which may be in force at the aerodrome.

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

- (a) maintain a continuous radio watch on the frequency of the aerodrome control tower responsible for providing aerodrome control service at the aerodrome, establish two-way radio communication as necessary for aerodrome control purposes and obtain such clearances for his or her movements as may be necessary for the protection of aerodrome traffic; or
- (b) if this is not possible, keep a watch for and comply with such clearances and instructions as may be issued by visual means.

(3) If an aerodrome flight information service unit is in operation, the pilot-in-command shall also, whilst the aircraft is within the aerodrome traffic zone -

- (a) maintain a continuous radio watch on the frequency of the aerodrome flight information service unit responsible for providing aerodrome flight information service at the aerodrome, establish two-way radio communication as necessary for aerodrome flight information service purposes and obtain information in respect of the surface wind, runway in use and altimeter setting and in respect of aerodrome traffic on the manoeuvring area and in the aerodrome traffic zone; or

- (b) if this is not possible, keep a watch for visual signals which may be displayed or may be issued by the aerodrome flight information service unit.

(4) An aircraft which is unable to communicate by radio shall, before landing at an aerodrome, make a circuit of the aerodrome for the purpose of observing the traffic, and reading such ground markings and signals as may be displayed thereon, unless it has the consent of the appropriate air traffic service unit to do otherwise.

Signals

91.06.13 The pilot-in-command of an aircraft in flight shall, upon observing or receiving any of the signals as prescribed in Document NA-CATS-OPS 91, take such action as may be required by the interpretation of the signal as prescribed in Document NA-CATS-OPS 91.

Water operations

91.06.14 (1) In areas in which the International Regulations for Preventing Collisions at Sea are in force, aircraft operated on the water shall comply with the provisions thereof.

(2) Aircraft in flight near the surface of the water shall, as far as possible, keep clear of all vessels and avoid impeding their navigation.

Reporting position

91.06.15 The pilot-in-command of an aircraft -

- (a) flying in controlled airspace;
- (b) flying in advisory airspace; or
- (c) on a flight for which alerting action is being provided,

shall ensure that reports are made to the responsible air traffic service unit, as soon as possible, of the time and level of passing each compulsory reporting point, together with any other required information, and he or she shall further ensure that position reports are similarly made in relation to additional reporting points, if so requested by the responsible air traffic service unit and that, in the absence of designated reporting points, position reports are made at the intervals specified by the responsible air traffic service unit or published by the Director in terms of Part 175, for that area.

Mandatory radio communication in controlled airspace

91.06.16 The pilot-in-command of an aircraft to be operated in or crossing a controlled airspace shall ensure that, before the aircraft enters such airspace, two-way radio contact is established with the responsible air traffic service unit on the designated radio frequency, and shall ensure, while the aircraft is within, and until it leaves, the controlled airspace, that continuous radio watch is maintained and that such further two-way radio communication as such air traffic service unit may require, is established: Provided that -

- (a) the air traffic service unit may permit an aircraft not capable of maintaining continuous two-way radio communication, to fly in the control area, terminal control area, control zone or aerodrome traffic zone for which it is responsible, if traffic conditions permit, in which case the flight shall be subject to such conditions as

such air traffic service unit deems necessary to ensure the safety of other air traffic; and

- (b) in the case of radio failure, a flight for which an air traffic service flight plan was filed and activated by the air traffic service unit on receipt of a departure time, may continue in controlled airspace if the communication failure procedures are complied with.

Mandatory radio communication in advisory airspace

91.06.17 The pilot-in-command of an aircraft to be operated in advisory airspace shall ensure that, before the aircraft approaches or enters such airspace -

- (a) two-way radio communication with the responsible air traffic service unit is established on the designated radio frequency; or
- (b) if such communication is not possible, two-way radio communication is established with any air traffic service unit which is capable of relaying messages to and from the responsible air traffic service unit; or
- (c) if such communication is not possible, broadcasts are made on the designated radio frequency giving information on the aircraft's intention to enter the airspace, and such pilot-in-command shall ensure that, while the aircraft is within the advisory airspace and until it departs therefrom,

a continuous radio watch is maintained on the designated radio frequency and that -

- (i) such further two-way radio communication as the responsible air traffic service unit may require, is established with any other air traffic service unit which is capable of relaying messages to and from such responsible air traffic service unit; or
- (ii) if such communication is not possible, such further two-way radio communication is established with any other air traffic service unit which is capable of relaying messages to and from the responsible air traffic service unit, as such responsible air traffic service unit may require; or
- (iii) if such communication is not possible, broadcasts are made on the designated radio frequency giving information on passing reporting points and when leaving the airspace concerned;

Provided that in the case of a radio failure, a flight for which an air traffic service flight plan was filed and activated by an air traffic service unit on receipt of a departure time, may continue in advisory airspace if the communication failure procedures are complied with.

Compliance with air traffic control clearance and instructions

91.06.18 The pilot of an aircraft shall -

- (a) comply with any air traffic control clearance which is obtained, unless the pilot obtains an amended clearance;
- (b) not operate the aircraft contrary to an air traffic control instruction in an area in which an air traffic control service is provided; and
- (c) when deviating from an air traffic control clearance or instruction, notify the air traffic control unit of the deviation, as soon as practicable.

Prohibited areas

91.06.19 (1) The Director may by notice in the AIP, AIC or NOTAM declare any area to be a prohibited area and shall, for the purposes of the prohibition contained in subregulation (2), when so declaring an area to be a prohibited area -

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

(2) No person shall fly any aircraft whatsoever in the air space above a prohibited area -

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

Restricted areas

91.06.20 (1) The Director may by notice in AIP, AIC or NOTAM declare any area to be a restricted area and shall, when so declaring an area to be a restricted area, specify in the notice in question -

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

(2) No person shall, in contravention of a restriction contemplated in subregulation (1)(a), fly any aircraft to which the said restriction applies, in any restricted area, unless the flight in question has been permitted by virtue of an authorisation contemplated in subregulation (1)(b).

DIVISION TWO : VISUAL FLIGHT RULES

Visibility and distance from cloud

91.06.21 Every VFR flight shall be so conducted that the aircraft is flown with visual reference to the surface by day and to identifiable objects by night and at no time above more than three eighths of cloud within a radius of five nautical miles of such aircraft and -

- (a) in the case of aircraft excluding helicopters, under conditions of visibility and distance from cloud equal to, or greater than, the conditions specified in the following table:

Airspace	Flight visibility	Distance from clouds	Ground visibility and ceiling
Control zones ⁽¹⁾	Five km	Horizontally: 2 000 feet Vertically: feet	Except in a case mentioned in footnote ⁽¹⁾ , no aircraft shall take-off from, land at, or approach to land at an aerodrome or fly within the control zone when the ground visibility at the aerodrome concerned is less than five km and the ceiling is less than 1 500 feet.
Within an aerodrome traffic zone (which does not also comprise a control zone or part of a control zone) or an aerodrome traffic area	Five km	Horizontally: 2 000 feet Vertically: feet	Except in a case mentioned in footnote ⁽²⁾ , no aircraft shall take-off from, land at, or approach to land at an aerodrome or fly within the aerodrome traffic zone or aerodrome traffic area when the ground visibility within such aerodrome traffic zone or aerodrome traffic area is less than five km and the ceiling is less than 1 500 feet.

Footnotes:

- (1) Minima not applicable to special VFR flights.
- (2) When a pilot in an aircraft maintains two-way radio communication with the aerodrome control tower or aerodrome flight information service unit, the pilot may, in respect of a cross-country flight, leave or enter the aerodrome traffic zone or aerodrome traffic area, as the case may be, when the ground visibility is equal to or greater than five km and the ceiling is equal to or higher than 500 feet.

Airspace excluding control zones or aerodrome traffic areas	Flight visibility	Distance from clouds	Ground visibility and ceiling
At or below 1 000 feet above the surface, by day only	One and a half km	Clear of cloud	—
At or below 1 500 feet above the surface, by night only	Five km	Horizontally: 2 000 feet Vertically: 500 feet	—
From above 1 000 feet to 1 500 feet above the surface, by day only	Five km	Horizontally: 2 000 feet Vertically: 500 feet	—
From above 1 500 feet above the surface up to and including flight level 100, by day and night	Five km	Horizontally: 2 000 feet Vertically: 500 feet	—
From above flight level 100 up to and including flight level 200, by day and night	Eight km	Horizontally: One and a half km Vertically: 1 000 feet	—
Above flight level 200, by day and night	Eight km	Horizontally: One and a half km Vertically: 1 000 feet	VFR flights shall not be conducted above flight level 200. VMC minima for IFR flights shall be above flight level 200.

- (b) in the case of helicopters, under conditions of visibility and distance from cloud equal to, or greater than, those conditions specified in the following table: Provided that the limitations as contained in the above-mentioned table shall not prevent a helicopter from conducting hover-in-ground-effect or hover-taxi operations if the visibility is not less than 100 m.

Airspace	Flight visibility	Distance from clouds	Ground visibility and ceiling
Control zones ⁽¹⁾	Two and a half km	Horizontally: 1 000 feet Vertically: Clear of cloud	Except in a case mentioned in footnote ⁽¹⁾ , no helicopter shall take-off from, land at, or approach to land at an aerodrome or fly within the control zone when the ground visibility at the aerodrome concerned is less than 2,5 km and the ceiling is less than 600 feet.
Within an aerodrome traffic zone (which does not also comprise a control zone or part of a control zone) or an aerodrome traffic area	Two and a half km	Horizontally: 1 000 feet Vertically: Clear of cloud	No helicopter shall take-off from, land at, or approach to land at an aerodrome or fly within the aerodrome traffic zone or an aerodrome traffic area when the ground visibility at the aerodrome concerned is less than 2,5 km and the ceiling is less than 600 feet.
Airspace excluding control zones or aerodrome traffic zones or aerodrome traffic areas	Flight visibility	Distance from clouds	Ground visibility and ceiling
At or below 1 500 feet above the surface, by day only	One km	Clear of cloud	—
At or below 1 500 feet above the surface, by night only	Five km	Clear of cloud	—
Above 1 500 feet above the surface, by day and night	Five km	Horizontally: 2 000 feet Vertically: feet	—

Footnote:

(1) Minima not applicable to special VFR flights.

Special VFR weather minima

91.06.22 A pilot-in-command may conduct special VFR operations in weather conditions below the conditions prescribed in regulation 91.06.21 within a control zone -

(a) under the terms of an air traffic control clearance;

- (b) by day only;
- (c) clear of clouds;
- (d) with a ceiling of at least 600 feet and visibility of at least 1 500 m;
- (e) in an aircraft equipped with two-way radio equipment capable of communicating with an air traffic service unit on the appropriate frequency; and
- (f) if leaving the control zone, in accordance with instructions issued by an air traffic service unit prior to departure.

Responsibility to ascertain whether VFR flight is permitted

91.06.23 Outside a control zone or an aerodrome traffic zone or an aerodrome traffic area, the ascertainment of whether or not weather conditions permit flight in accordance with VFR, shall be the responsibility of the pilot-in-command of an aircraft, and whenever weather conditions do not permit a pilot to maintain the minimum distance from cloud and the minimum visibility required by VFR, the pilot shall comply with IFR.

DIVISION THREE : INSTRUMENT FLIGHT RULES

Compliance with IFR

91.06.24 A flight conducted above flight level 200 shall be flown in compliance with IFR as prescribed in this Subpart.

Aircraft equipment

91.06.25 Aircraft shall be equipped with suitable instruments and radio navigation apparatus appropriate to the route to be flown and in accordance with the provisions of Subpart 5.

Change from IFR flight to VFR flight

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

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

IFR procedures

91.06.27 (1) Unless otherwise authorised by the responsible air traffic service unit, aircraft flown in compliance with the rules contained in this Division, shall

comply with IFR procedures applicable in the relevant airspace.

(2) Subject to the provisions of regulation 91.06.25, the pilot-in-command of an aircraft may execute, or endeavour to execute, a cloud break or let-down procedure at an aerodrome, or nominate an aerodrome as an alternate aerodrome: Provided that the requirements relating to cloud break or let-down procedures and to flights under IMC, as published by the Director in the NOTAM, can be complied with.

**DIVISION FOUR : AIRCRAFT ON OTHER THAN SCHEDULED
INTERNATIONAL AIR SERVICES**

Foreign military aircraft

91.06.28 No foreign military aircraft shall fly over or land in Namibia except on the express invitation or with the express permission of the Minister, but any such aircraft so flying over or landing in Namibia shall be exempt from these regulations to such extent and on such conditions as are specified in the invitation or permission.

Identification and interception of aircraft

91.06.29 (1) An intercepted aircraft shall carry out the instruction of an intercepting aircraft, as prescribed in these regulations.

(2) When an aircraft is intercepted, the pilot-in-command shall forthwith establish radio contact with the intercepting aircraft on 121,5 MHz, if the aircraft is so equipped, and if radio contact has not already been established.

(3) When the intercepting aircraft cannot establish radio contact or contact in any other practical way with the intercepted aircraft, visual signals as prescribed in Document NA-CATS-OPS 91 shall be used.

(4) The visual signals shall be used as follows:

- (a) When an aircraft has been intercepted for identification purposes only, the intercepting aircraft shall use the second series to show that the aircraft may proceed;

- (b) when an aircraft is to be led away from a prohibited or restricted area, the appropriate part of the first series shall be used, and the second series shall be used when the purpose has been achieved and the aircraft is released;
- (c) when an aircraft is required to land, the appropriate part of the first series shall initially be used, followed by the third series when in the vicinity of the designated landing area;
- (d) when the pilot of the intercepted aircraft considers the landing area designated as unsuitable for his or her aircraft type, he or she shall use the fourth series to indicate this, upon which new instructions shall be given by the intercepting aircraft;
- (e) when an intercepted aircraft is in distress, the distress signals shall be used, where practical.

DIVISION FIVE : AIR TRAFFIC RULES**Air traffic service procedures**

91.06.30 The pilot-in-command of an aircraft to be operated in controlled airspace shall -

- (a) ensure that an air traffic service flight plan is submitted and changes thereto are notified as prescribed in regulation 91.03.4;
- (b) ensure that radio contact is established with the responsible air traffic service unit and that radio communication is maintained as prescribed in regulation 91.06.16; and
- (c) comply with air traffic control clearances and instructions:

Provided that -

- (i) the pilot-in-command of an aircraft may deviate from an air traffic control clearance in exceptional circumstances, but such deviation shall be reported to the responsible air traffic service unit as soon as possible; and
- (ii) the pilot-in-command of an aircraft may propose an amendment to an air traffic control clearance, but such amendment shall not be applied until

acceded to by the responsible air traffic service unit.

Priority

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

**DIVISION SIX : HEIGHTS AND INSTRUMENT APPROACH
AND DEPARTURE PROCEDURES**

Minimum heights

91.06.32 (1) Except when necessary for taking off or landing, or except with prior written approval of the Director, no aircraft -

- (a) shall be flown over built-up areas or over an open-air assembly of persons at a height less than 1 000 feet above the highest obstacle, within a radius of 2 000 feet from the aircraft;
- (b) when flown elsewhere than specified in paragraph (a), shall be flown at a height less than 500 feet above the ground or water, unless the flight can be made without hazard or nuisance to persons or property on the ground or water; and
- (c) shall circle over or do repeated overflights over an open-air assembly of persons at a height less than 3 000 feet above the surface.

(2) Except when necessary for take-off or landing, an aircraft shall by night, in IMC, or when operated in accordance with IFR, be flown -

- (a) if within an area determined by the Director, at a height of at least 1 000 feet above the highest obstacle within that area and in accordance with such procedure as the Director may determine; or

- (b) if elsewhere than in an area contemplated in paragraph (a), at a height of at least 1 500 feet above the highest obstacle located within five nautical miles of the aircraft in flight.

Semi-circular rule

91.06.33 (1) Unless otherwise directed by an air traffic service unit, the pilot-in-command of an aircraft in level flight shall fly at an appropriate flight level selected according to magnetic track from the table as prescribed in Document NA-CATS-OPS 91.

(2) Aircraft flown in accordance with VFR at a height of less than 1 500 feet above the surface, shall not be required to comply with the provisions of subregulation (1), unless if otherwise directed by an air traffic service unit.

(3) A flight conducted from flight level 200 and above, shall be flown in compliance with IFR.

Standard instrument approach to and departure from aerodrome

91.06.34 When an instrument approach to, or instrument departure from, an aerodrome is necessary, the pilot-in-command of an aircraft shall use the standard instrument approach and departure procedure as published by the Director in the AIC, AIP, AIP SUP or NOTAM.

SUBPART 7

FLIGHT OPERATIONS

Routes and areas of operation

91.07.1 The owner or operator of an aircraft shall ensure that -

- (a) operations are only conducted along such routes or within such areas, for which approval or authorisation has been obtained, where required, from the authority concerned;
- (b) the performance of the aircraft intended to be used, is adequate to comply with minimum flight altitude requirements; and
- (c) the equipment of the aircraft intended to be used, complies with the minimum requirements for the planned operation.

Minimum flight altitudes

91.07.2 (1) No pilot-in-command shall operate an aircraft at altitudes below -

- (a) altitudes, established by the owner or operator, which provide the required terrain clearance, taking into account the operating limitations referred to in Subpart 9; and

- (b) the minimum altitudes referred to in Subpart 6, except when necessary for take-off and landing.

(2) The method of establishing minimum flight altitudes referred to in subregulation (1)(a), shall be as prescribed in Document NA-CATS-OPS 91.

(3) Where the minimum flight altitudes established by the authority of a foreign State are higher than the minimum flight altitudes prescribed in this regulation, the minimum flight altitudes established by such authority shall apply in respect of a Namibian registered aircraft flying in the airspace of the foreign State concerned.

Use of aerodromes

91.07.3 (1) No pilot shall use, and no owner or operator shall authorise the use of, an aerodrome as a destination or alternate destination aerodrome, unless such aerodrome is adequate for the type of aircraft and operation concerned.

(2) Except in an emergency, no pilot-in-command of an aircraft shall take-off or land by night, unless the place of take-off or landing is equipped with night flying facilities.

Helicopter landings and take-offs

91.07.4 (1) No pilot-in-command of a helicopter shall land at or take-off from any place unless the place is so situated to permit the helicopter, in the event of an emergency arising during such landing or take-off, to land without undue hazard to persons or property on the surface.

(2) No pilot-in-command of a helicopter shall land on, or take-

off from, any building, structure or place situated within 100 metres of any other building or structure, in the area of jurisdiction of a local authority, unless such building, structure or place has been approved for the purpose by the Director: Provided that this restriction shall not apply -

- (a) to a helicopter landing on, or taking off from, a building, structure or place within an industrial area, a commercial warehouse area or an open farm land which is suitable for such purposes and in respect of which helicopter the pilot-in-command is the holder of a valid commercial or airline transport pilot licence (helicopter) or, in the case of the holder of a private pilot licence (helicopter), with the written permission of the Director, unless specifically prohibited by the local authority;
- (b) to a helicopter engaged in an emergency medical service operation referred to in Part 138, or undertaking a flight necessary for the exercising of any power in terms of any law.

(3) A local authority may after consultation with the Director, extend the scope of the provisions of subregulation (2)(a) to include other places in its area of jurisdiction.

(4) The Director may, in the interests of aviation safety, impose conditions or institute restrictions as to the use of any building, structure or place for the landing or take-off of helicopters, or require special flight procedures to be adopted at, or special routes to be followed to or from, such building, structure or place by helicopters, and the Director may impose different conditions, institute different

restrictions or require different special flight procedures to be adopted in respect of different buildings, structures or places.

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

Aerodrome operating minima

91.07.5 (1) No pilot-in-command of an aircraft shall use an aerodrome as a destination or alternate aerodrome, unless the operating minima for such aerodrome, established by the appropriate authority of the State in which the aerodrome is situated, can be complied with.

(2) The aerodrome operating minima for a specific type of approach and landing procedure shall be applicable if -

- (a) the ground equipment shown on the respective instrument approach and landing chart required for the intended procedure, is operative;
- (b) the aircraft systems required for the type of approach, are operative;
- (c) the required aircraft performance criteria are complied with; and

- (d) the flight deck crew is qualified to conduct the type of approach.

(3) In determining or establishing the aerodrome operating minima applicable to any particular operation, the owner or operator shall take into account -

- (a) the type, performance and handling characteristics of the aircraft;
- (b) the composition of the flight deck crew, their competence and experience;
- (c) the dimensions and characteristics of the runways or touch-down areas which may be selected for use;
- (d) the adequacy and performance of the available visual and non-visual ground aids;
- (e) the equipment available in the aircraft for the purpose of navigation or control of the flight path, as appropriate, during the take-off, approach, flare, landing or missed approach;
- (f) the obstacles in the approach and missed approach areas and the climb-out areas and necessary clearance;
- (g) the obstacle clearance altitude or height for the instrument approach procedures;

- (h) the means to determine and report meteorological conditions; and
- (i) the availability and adequacy of emergency services.

Threshold crossing height

91.07.6 (1) The owner or operator of an aircraft shall establish operational procedures designed to ensure that the aircraft being used to conduct precision approaches, crosses the threshold by a safe margin, with such aircraft in the landing configuration and attitude.

(2) The operational procedures applicable to Category II and Category III approaches, shall be approved by the Director.

Pre-flight selection of aerodromes

91.07.7 (1) The owner or operator of an aircraft shall select destination or alternate aerodromes in accordance with regulation 91.07.5 and Part 121, Part 127 or Part 135, as the case may be, when planning a flight.

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

(3) The owner or operator shall select and specify in the air traffic service flight plan referred to in regulation 91.03.3, a take-off alternate aerodrome, if it would not be possible for the aircraft to return to the aerodrome of departure due to meteorological or performance reasons.

(4) The take-off alternate aerodrome referred to in subregulation (3), shall be located within -

- (a) one hour flight time at one-engine cruising speed according to the aircraft flight manual referred to in regulation 91.03.2, in still air standard conditions based on the actual take-off mass for a twin-engine aircraft;
- (b) two hours flight time at one-engine inoperative cruising speed according to the aircraft flight manual referred to in regulation 91.03.2, in still air standard conditions based on the actual take-off mass for three-engine and four-engine aircraft;
- (c) if the aircraft flight manual referred to in regulation 91.03.2, does not contain a one-engine inoperative cruising speed, the speed to be used for calculation, shall be the speed which is achieved with the remaining engine set at maximum continuous power.

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

(6) The owner or operator of an aeroplane shall select at least one destination alternate aerodrome for each IFR flight, unless -

- (a) two suitable non-intersecting runways are available at

the destination aerodrome; and

- (b) the meteorological conditions prevailing are such that, for the period from one hour before until one hour after the expected time of arrival at the destination aerodrome, the approach from the minimum sector safe altitude and landing can be made in VMC; or
- (c) the destination aerodrome is isolated and no adequate destination alternate aerodrome exists.

(7) The owner or operator shall select two destination alternate aerodromes when -

- (a) the appropriate weather reports or forecasts for the destination aerodrome, or any combination thereof, indicate that during a period commencing one hour before and ending one hour after the estimated time of arrival, the weather conditions will be below the applicable planning minima; or
- (b) no meteorological information can be obtained.

(8) The owner or operator shall specify the destination alternate aerodrome in the air traffic service flight plan referred to in regulation 91.03.3.

(9) The owner or operator shall specify en-route alternate aerodromes for extended-range operations with twin-engine aeroplanes and shall specify such en-route alternate aerodromes in the air traffic service flight plan referred to in regulation 91.03.3.

(10) When planning a flight, the owner or operator shall only select an aerodrome as a destination or alternate aerodrome, if the appropriate weather reports or forecasts, or a combination thereof, are at or above the applicable planning minima for a period of one hour before to one hour after the estimated time of arrival of the aircraft at the aerodrome.

Planning minima for IFR flights

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

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

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

(4) The owner or operator of an aircraft shall only select the destination aerodrome or destination alternate aerodrome when the appropriate weather reports or forecasts, or any combination thereof, indicate that, during a period commencing one hour before and ending one hour after the estimated time of arrival at the aerodrome, the weather conditions will be at, or above, the applicable planning minima as follows:

(a) Planning minima for a destination aerodrome -

- (i) RVR or visibility specified in accordance with regulation 91.07.5; and
 - (ii) for a non-precision approach or a circling approach, the ceiling at, or above, MDA/H; and
 - (b) planning minima for a destination alternate aerodrome shall be as prescribed in Document NA-CATS-OPS 91.
- (5) The owner or operator of an aircraft shall not select an aerodrome as an en-route alternate aerodrome unless the appropriate weather reports or forecasts, or any combination thereof, indicate that, during a period commencing one hour before and ending one hour after the estimated time of arrival at the aerodrome, the weather conditions will be at or above the planning minima as prescribed in Document NA-CATS-OPS 91.
- (6) The owner or operator shall not select an aerodrome as an ETOPS en-route alternate aerodrome unless the appropriate weather reports or forecasts, or any combination thereof, indicate that, during a period commencing one hour before and ending one hour after the estimated time of arrival at the aerodrome, the weather conditions will be at or above the planning minima as prescribed in Document NA-CATS-OPS 91 and in accordance with the ETOPS approval of the owner or operator.

Meteorological conditions

91.07.9 (1) On a flight to be conducted in accordance with IFR, the pilot-in-command of an aircraft shall not -

- (a) commence take-off; or

- (b) continue beyond the in-flight decision point,

unless information is available indicating that conditions will, at the estimated time of arrival of such aircraft, be at, or above, the applicable aerodrome operating minima -

- (i) at the destination aerodrome; or
- (ii) where a destination alternate aerodrome is required, at the destination aerodrome and one destination alternate aerodrome or at two destination alternate aerodromes.

(2) On a flight conducted in accordance with VFR, the pilot-in-command of an aircraft 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 prescribed in this Part possible.

VFR operating minima

91.07.10 The owner or operator of an aircraft shall ensure that -

- (a) VFR flights are conducted in accordance with the visual flight rules prescribed in Subpart 6 and in accordance with the requirements as prescribed in Document NA-CATS-OPS 91; and
- (b) special VFR flights are not commenced when the visibility is less than 3 km and not otherwise conducted

when the visibility is less than the visibility prescribed
in regulation 91.06.22(d).

Mass and balance

91.07.11 (1) The owner or operator of an aircraft shall ensure that, during any phase of the operation, the loading, mass and the centre of gravity of the aircraft complies with the limitations specified in the approved aircraft flight manual referred to in regulation 91.03.2, or the operations manual referred to in Part 121, Part 127 or Part 135, as the case may be, if the limitations therein are more restrictive.

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

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

(4) The aircraft 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.

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

(6) The influence of the mass of the operating items and flight crew members referred to in subregulation (5), on the centre of gravity of the aircraft

shall be determined by the owner or operator of such aircraft.

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

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

Fuel and oil supply

91.07.12 (1) The pilot-in-command of an aircraft shall not commence a flight unless he or she is satisfied that the aircraft carries at least the planned amount of fuel and oil to complete the flight safely, taking into account operating and meteorological conditions and the expected delays.

(2) The pilot-in-command shall ensure that the amount of usable fuel remaining in-flight, is not less than the fuel required to proceed to an aerodrome or, in the case of a helicopter, a suitable landing place, where a safe landing can be made.

(3) If the usable fuel on board the aircraft is less than the final reserve fuel, the pilot-in-command of such aircraft, shall -

(a) in the case of an aeroplane, declare an emergency; or

(b) in the case of a helicopter, land as soon as possible.

(4) The method of calculating the amount of fuel to be carried for each flight shall be as prescribed in Document NA-CATS-OPS 91.

Refuelling or defuelling with passengers on board

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

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

Smoking in aircraft

91.07.14 (1) No person shall smoke in a Namibian registered aircraft or in any foreign registered aircraft when in or over Namibia, unless and except in so far as smoking is permissible in accordance with the aircraft flight manual referred to in regulation 91.03.2 or other equivalent document for such aircraft.

(2) In an aircraft in which smoking is permitted, smoking shall nevertheless be prohibited -

- (a) when the aircraft is on the ground;
- (b) during take-off; and
- (c) during an approach to land.

(3) In all Namibian registered aircraft, notices shall be displayed in a prominent place in all passenger and crew compartments, indicating to what extent, and when, smoking is permitted or prohibited.

Instrument approach and departure procedures

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

(2) Notwithstanding the provisions prescribed in subregulation (1), a pilot-in-command may accept an air traffic control clearance to deviate from a published approach or departure route: Provided that -

- (a) obstacle clearance criteria are observed and full account is taken of the operating conditions; and
- (b) the final approach is flown visually or in accordance with the established instrument approach procedure.

Noise abatement procedures

91.07.16 No person shall operate an aircraft contrary to noise abatement procedures established for an aerodrome in terms of the provisions of Part 139.

Submission of air traffic service flight plan

91.07.17 The owner or operator of an aircraft shall ensure that a flight is not commenced unless an air traffic service flight plan referred to in regulation 91.03.4, has been filed, or adequate information has been deposited in order to permit alerting

services to be activated, if required.

Seats, safety belts and harnesses

91.07.18 (1) Before take-off and landing, and whenever deemed necessary in the interests of aviation safety, the pilot-in-command of an aircraft shall ensure that each person on board such aircraft, occupies a seat or berth with his or her safety belt or harness, where provided, properly secured.

(2) The pilot-in-command shall ensure that multiple occupancy of aircraft seats does not occur other than by one adult and one child less than two years of age, who is properly secured by a child restraint device.

Passenger seating

91.07.19 The owner or operator of an aircraft shall ensure that passengers are seated where, in the event that an emergency evacuation is required, such passengers may best assist and not hinder evacuation from the aircraft.

Passenger briefing

91.07.20 (1) The owner or operator of an aircraft shall ensure that -

- (a) passengers are verbally briefed about safety matters, parts or all of which may be given by an audio-visual presentation; and
- (b) in aircraft engaged in commercial air transport operations, passengers are provided with a safety briefing card on which picture type instructions indicate the

operation of emergency equipment and exits likely to be used by passengers;

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

(2) The owner or operator shall ensure that, before take-off -

- (a) passengers are briefed, to the extent applicable, on -
 - (i) whether smoking is prohibited or permitted;
 - (ii) when the back of the seat is to be in the upright position and the tray table stowed;
 - (iii) the location of emergency exits;
 - (iv) the location and use of floor proximity escape path markings;
 - (v) the stowage of carry-on baggage;
 - (vi) any restrictions on the use of portable electronic devices; and
 - (vii) the location and the contents of the safety briefing card; and

(b) passengers receive, to the extent applicable, a demonstration of -

(i) the use of safety belts or safety harnesses, including the manner in which the safety belts or safety harnesses are to be fastened and unfastened;

(ii) the location and use of oxygen equipment and the extinguishing of all smoking materials when oxygen is being used; and

(iii) the location and use of life jackets.

(3) The owner or operator shall ensure that, after take-off, passengers are reminded of -

(a) whether smoking is prohibited or permitted; and

(b) the use of safety belts or safety harnesses.

(4) The owner or operator shall ensure that, before landing, passengers are reminded of -

(a) whether smoking is prohibited or permitted;

(b) the use of safety belts or safety harnesses;

(c) when the back of the seat is to be in the upright position and the tray table stowed, if applicable;

- (d) the re-stowage of carry-on baggage; and
- (e) any restrictions on the use of portable electronic devices.

(5) The owner or operator of an aircraft shall ensure that, after landing, passengers are reminded of -

- (a) whether smoking is prohibited or permitted; and
- (b) the use of safety belts or safety harnesses.

Emergency equipment

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

(2) The pilot-in-command of the aircraft shall ensure that the emergency equipment concerned remains easily accessible for immediate use by the flight crew members.

Illumination of emergency exits

91.07.22 When an aircraft, which is equipped with an emergency lighting system referred to in regulation 91.04.25, is in flight and below 1 000 feet above ground level, or on the ground with passengers on board -

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

Use of supplemental oxygen

91.07.23 (1) The pilot-in-command of an aircraft shall ensure that flight deck crew members engaged in performing duties essential to the safe operation of an aircraft in flight, use supplemental oxygen continuously when the flight deck pressure altitude exceeds 10 000 feet for more than 60 minutes, and at all times when the flight deck pressure altitude exceeds 12 000 feet.

(2) The pilot-in-command of an aircraft shall ensure that, with the exception of supersonic aeroplanes, when a flight is conducted above FL 410, at least one pilot at the pilot station wears an oxygen mask when the other pilot leaves the flight deck for any reason.

Approach and landing conditions

91.07.24 Before commencing an approach to land, the pilot-in-command of an aircraft shall satisfy himself or herself that, according to the information available to him or her, the weather at the aerodrome and the condition of the runway or touch-down area intended to be used, will not prevent a safe approach, landing or missed approach, having regard for the performance information contained in the aircraft flight manual referred to in regulation 91.03.2 or similar document.

Commencement and continuation of approach

91.07.25 (1) When operating in IMC and in accordance with IFR -

- (a) the pilot-in-command of an aircraft may commence an approach regardless of the reported RVR/visibility, but the approach shall not be continued beyond the outer marker or equivalent published position, unless the reported RVR/visibility for the runway or touch-down area is equal to, or better than, the applicable operating minima.

(2) Where RVR is not available, the pilot-in-command may derive an RVR value by converting the reported visibility in accordance with the provisions as prescribed in Document NA-CATS-OPS 91.

(3) If, after passing the outer marker or equivalent published position in accordance with the provisions of subregulation (1), the reported RVR/visibility falls below the applicable minima, the pilot-in-command may continue the approach to A/H or MDA/H.

(4) The pilot-in-command may continue the approach below A/H or MDA/H and the landing may be completed: Provided that the required visual reference is established at the A/H or MDA/H and is maintained.

(5) Where no outer marker or equivalent published position exists, the pilot-in-command shall decide whether to continue or abandon the approach before descending below 1 000 feet above the aerodrome on the final approach segment.

In-flight simulation of emergency situations

91.07.26 The owner or operator of an aircraft shall ensure that no person, and no person shall, simulate emergency situations in the aircraft affecting the flight characteristics of such aircraft when passengers are on board such aircraft.

Turning helicopter rotors

91.07.27 No person engaged in helicopter operations, shall permit helicopter rotors to be turned under power without -

- (a) a qualified pilot; or
- (b) if the helicopter is stationary on the ground, a person who has received the relevant instruction and has been declared competent to control the helicopter while stationary on the ground, by a Category B flight instructor, at the controls of such helicopter.

Starting engines

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

(2) Where the pilot of an aeroplane is the only competent person present and it has been necessary for chocks to be used, he or she shall ensure that the controls of the aeroplane are left unattended for as short a time as possible when removing the chocks.

SUBPART 8

LOW-VISIBILITY OPERATIONS

Aerodrome operating minima

91.08.1 The aerodrome operating minima shall be the aerodrome operating minima prescribed in Subpart 6, and the provisions of regulation 91.07.5 shall apply *mutatis mutandis*.

General operating rules for low-visibility operations

91.08.2 (1) The owner or operator of an aircraft shall ensure that no Category II or III operations are conducted with the aircraft unless -

- (a) such aircraft is certificated for operations with decision heights below 200 feet or no decision height, and equipped in accordance with this Part or an equivalent regulation accepted by the Director;
- (b) a suitable system for recording approach or automatic-landing success and failure is established and maintained to monitor the overall safety of the operation;
- (c) the operations are approved by the Director; and
- (d) decision height is determined by means of a radio altimeter.

(2) The pilot-in-command shall not conduct low-visibility take-offs with RVR of less than 150 m for Category A, B, C and D aeroplanes, or RVR of

less than 200 m for Category E aeroplanes, unless approved by the Director.

(3) The categories referred to in subregulation (2), are established on the basis of 1.3 times the stall speed of the aeroplanes in the landing configuration at maximum certificated landing mass and are as follows:

- (a) Category A - less than 91 knots indicated airspeed;
- (b) Category B - 91 knots indicated airspeed or more, but less than 121 knots indicated airspeed;
- (c) Category C - 121 knots indicated airspeed or more, but less than 141 knots indicated airspeed;
- (d) Category D - 141 knots indicated airspeed or more, but less than 166 knots indicated airspeed; and
- (e) Category E - 166 knots indicated airspeed or more, but less than 211 knots indicated airspeed.

Aerodrome considerations for low-visibility operations

91.08.3 (1) No pilot-in-command of an aircraft shall use an aerodrome for Category II or III operations, unless the aerodrome is approved for such operations by the authority of the State in which the aerodrome is located.

(2) The owner or operator of an aircraft intended to be used in low-visibility operations, shall verify that low-visibility procedures have been established, and are in force, at the aerodromes where low-visibility operations are to be conducted.

Training and qualifications for low-visibility operations

91.08.4 The owner or operator of an aircraft shall ensure that, prior to conducting low-visibility take-off or Category II and III operations -

- (a) each flight deck crew member -
 - (i) has completed the training and checking requirements as prescribed in Document NA-CATS-OPS 91, including simulator training in operating to the limiting values of RVR and decision height appropriate to the owner's or operator's Category II or III approval; and
 - (ii) is qualified in accordance with the requirements as prescribed in Document NA-CATS-OPS 91; and
- (b) the flight deck crew qualification is specific to the operation and the aeroplane type.

Operating procedures for low-visibility operations

91.08.5 (1) The owner or operator of an aircraft shall establish procedures and instructions to be used for low-visibility take-offs and Category II and III operations.

- (2) The pilot-in-command shall satisfy himself or herself that -

- (a) the status of the visual and non-visual facilities is sufficient prior to commencing a low-visibility take-off or a Category II or III approach;
- (b) appropriate low-visibility procedures are in force according to information received from an air traffic service unit, before commencing a low-visibility take-off or a Category II or III approach; and
- (c) the flight deck crew members are properly qualified to carry out a low-visibility take-off in a RVR of less than 150 m in a Category A, B, C and D aeroplane, or 200 m in a Category E aeroplane, or a Category II or III approach.

Minimum equipment for low-visibility operations

91.08.6 (1) The operator of an aircraft shall include in the operations manual referred to in regulation 121.04.2, 127.04.2 or 135.04.2, as the case may be, the minimum equipment which shall be serviceable at the commencement of a low-visibility take-off or a Category II or III approach in accordance with the aircraft flight manual referred to in regulation 91.03.2.

(2) The pilot-in-command shall satisfy himself or herself that the status of the aircraft and the relevant airborne systems thereof, is appropriate for the specific operation to be conducted.

SUBPART 9

PERFORMANCE OPERATING LIMITATIONS

General provisions

91.09.1 (1) The owner or operator of an aircraft shall ensure that the aircraft is operated in compliance with -

- (a) the terms and conditions of the certificate of airworthiness issued in respect of such aircraft;
- (b) the operating limitations, the markings and placards as prescribed by the certificating authority of the State of Registry; and
- (c) the mass limitations prescribed in Part 21.

(2) In complying with subregulation (1), the owner or operator shall take account of airframe configuration, environmental conditions and the operation of systems which may have an effect the performance of the aircraft, when appropriate.

(3) The operator of an aircraft engaged in a commercial air transport operation, shall comply with the provisions of the appropriate regulations in Part 121, Part 127 or Part 135, as the case may be.

Helicopter operating limitations

91.09.2 (1) Performance Class 3 helicopters shall only be operated in conditions of weather and light, and over such routes and diversions therefrom, which

may permit a safe forced landing to be executed in the event of an engine failure.

(2) The provisions of subregulation (1) shall *mutatis mutandis* apply to performance Class 2 helicopter prior to the defined point after take-off and after the defined point before landing.

(3) Only performance Class 1 helicopters shall be permitted to operate from elevated heliports in built-up urban areas.

Helicopter performance classification

91.09.3 For performance purposes, helicopters are classified as follows:

- (a) Class 1 helicopter - a helicopter with performance such that, in case of critical power unit failure, the helicopter is able to land on the rejected take-off area or safely continue the flight to an appropriate landing area, depending on when the failure occurs;
- (b) Class 2 helicopter - a helicopters with performance such that, in case of critical power unit failure, the helicopter is able to safely continue the flight, except when the failure occurs prior to a defined point after take-off or after a defined point before landing, in which case a forced landing may be required; and
- (c) Class 3 helicopter - a helicopter with performance such that, in case of power unit failure at any point in the flight profile, a forced landing has to be performed.

Aeroplane performance classification

91.09.4 For performance purposes, aeroplanes are classified as follows:

- (a) Class A aeroplanes -
 - (i) multi-engine aeroplanes powered by turbo-propeller engines with a maximum approved passenger seating configuration of more than nine seats or a maximum certificated mass exceeding 5 700 kilograms; and
 - (ii) multi-engine turbojet-powered aeroplanes;
- (b) Class B aeroplanes - propeller-driven aeroplanes with a maximum approved passenger seating configuration of 9 seats or less, and a maximum certificated mass of 5 700 kilograms or less;
- (c) Class C aeroplanes - aeroplanes powered by two or more reciprocating engines with a maximum approved passenger seating configuration of more than nine seats or a maximum certificated mass exceeding 5 700 kilograms; and
- (d) Class D aeroplanes - single-engine aeroplanes.

SUBPART 10
MAINTENANCE

General provision

91.10.1 No owner, operator or pilot-in-command of an aircraft shall operate the aircraft unless such aircraft is maintained and released to service in accordance with the provisions of Part 43.
