



# GOVERNMENT GAZETTE

## OF THE

# REPUBLIC OF NAMIBIA

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## General Notice

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### MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION

No. 245

1997

#### PROPOSED CIVIL AVIATION REGULATIONS :

#### PART 137 - CERTIFICATED AIRCRAFT OPERATORS AND OTHER

#### FLIGHT OPERATIONS : AGRICULTURAL OPERATIONS

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 agricultural operations 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 Agricultural Operations set out in Schedule 3. The proposed regulations represent Part 137 of the proposed structure.

The proposed regulations on Agricultural Operations make provision for certain information to be contained in a document called Document NA-CATS-OPS 137. 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 agricultural operations.

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 Agricultural Operations and if necessary, a workshop will be held to finalise the proposed regulations.

**SCHEDULE 1**  
**NAMIBIAN CIVIL AVIATION REGULATIONS STRUCTURE**

<p><b>DEFINITIONS</b></p> <p>Part 1 Definitions</p> <p><b>PROCEDURES</b></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><b>AIRCRAFT</b></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><b>PERSONNEL</b></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><b>RULES OF THE AIR AND GENERAL OPERATING RULES</b></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><b>CERTIFICATED AIRCRAFT OPERATORS AND OTHER FLIGHT OPERATIONS</b></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><b>ORGANISATIONS</b></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><b>AERODROMES AND HELIPORTS</b></p> <p>Part 139 Licensing</p> <p>Part 139 General standards</p> <p><b>AIR TRAFFIC SERVICES</b></p> <p>Part 172 Airspace and air traffic services</p> <p><b>AERONAUTICAL INFORMATION AND RELATED SERVICES</b></p> <p>Part 174 Meteorological information services</p> <p>Part 175 Aeronautical information services</p> <p><b>ADMINISTRATION</b></p> <p>Part 183 General</p> <p>Part 185 Offences</p> <p>Part 187 Fees</p>
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**SCHEDULE 2****Definitions**

In these regulations, unless the context otherwise indicates -

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

“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;

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

“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);

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

“Document NA-CATS-OPS 137” means a document on the Namibian Civil Aviation Technical Standards relating to agricultural operations which is published by the Director in terms of the Act;

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

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

“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;

“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;

“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.

**SCHEDULE 3**  
**LIST OF REGULATIONS**

**SUBPART 1 : GENERAL PROVISIONS**

- 137.01.1    Applicability
- 137.01.2    Requirements for ratings
- 137.01.3    Requirements for commercial agricultural operations
- 137.01.4    Aircraft equipment

**SUBPART 2 : FLIGHT RULES**

- 137.02.1    Dispensing agricultural chemicals
- 137.02.2    Direction of turns at aerodrome
- 137.02.3    Heights of turns at aerodromes
- 137.02.4    Operation without position lights
- 137.02.5    Operation over populous areas
- 137.02.6    Operation over non-populous area
- 137.02.7    Fuel reserves

**SUBPART 3 : SPECIAL FLIGHT RULES**

- 137.03.1    General
- 137.03.2    Maximum certificated mass
- 137.03.3    Take-off distance and flight path
- 137.03.4    Take-off flight path

**SUBPART 4 : COMMERCIAL OPERATIONS**

- 137.04.1    Records
- 137.04.2    Remote base operations
- 137.04.3    Operations over populous areas

**SUBPART 1**  
**GENERAL PROVISIONS**

**Applicability**

**137.01.1** (1) This Part shall apply to -

- (a) aircraft engaged in commercial or non-commercial agricultural operations within Namibia;
- (b) aircraft registered in Namibia and engaged in commercial or non-commercial international agricultural operations; and
- (c) persons acting as crew members of the aircraft operated in terms of this Part.

(2) Unless the context otherwise indicates, agricultural operations shall be conducted in accordance with and in addition to the provisions of Part 91 and Part 121, Part 127 or Part 135, as the case may be.

**Requirements for ratings**

**137.01.2** The pilot of an aircraft engaged in an agricultural operation, shall hold -

- (a) a valid agricultural pilot rating issued in terms of Subpart 48 of Part 61 for the category of aircraft used; and



- (b) a pest control operator's certificate issued in terms of the Fertilisers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act 36 of 1947).

### **Requirements for commercial agricultural operations**

**137.01.3** The operator of an aircraft engaged in commercial agricultural operations, shall not operate the aircraft unless such operator is the holder of a valid -

- (a) licence issued in terms of the Air Services Act, 1949 (Act 51 of 1949); and
- (b) operating certificate issued in terms of Part 121, Part 127 or Part 135, as the case may be.

### **Aircraft equipment**

**137.01.4** Each owner or operator of an aircraft engaged in an agricultural operation shall ensure that the aircraft has, in addition to the equipment prescribed in Part 91, an approved and properly installed shoulder harness for each person on board.

**SUBPART 2**  
**FLIGHT RULES**

**Dispensing agricultural chemicals**

**137.02.1** (1) A pilot dispensing an agricultural chemical on an agricultural aircraft operation shall dispense the agricultural chemical -

- (a) for its registered use; and
- (b) in accordance with the safety instructions or use limitations on its label.

(2) Notwithstanding the provisions of subregulation (1), the pilot may, if the operation is for experimental purposes -

- (a) under the supervision of a Government department conducting research in the field; or
- (b) in terms of a permit from the applicable authority controlling such chemicals,

dispense the agricultural chemical as necessary for the particular experiment.

**Direction of turns at aerodrome**

**137.02.2** A pilot performing an agricultural aircraft operation may turn in a direction other than that prescribed in Part 91, when approaching for a landing at, or after take-off from, an aerodrome if -

- (a) the aerodrome is used solely for agricultural aircraft operations; or
- (b) in any other case, the aerodrome displays the visual ground signal prescribed in Part 91 indicating that an agricultural aircraft operation is being conducted from that aerodrome.

### Height of turns at aerodromes

**137.02.3** A pilot performing an agricultural aircraft operation may commence a turn after take-off from an aerodrome at an altitude other than that prescribed in Part 91 if -

- (a) the turn does not cause the aircraft to fly over a populous area; and
- (b) the aerodrome -
  - (i) is used solely for agricultural aircraft operations; or
  - (ii) has an aerodrome control service in operation and the turn is performed in accordance with an air traffic control clearance; or
  - (iii) in any other case, displays the visual ground signal as prescribed in Part 91 indicating that an agricultural aircraft operation is being conducted from that aerodrome.

### **Operation without position lights**

**137.02.4** Notwithstanding the provisions of Part 91, a pilot performing an agricultural aircraft operation may operate at night without aircraft position lights if -

- (a) it is in the interest of aviation safety to turn the lights off due to operating conditions;
- (b) prominent unlighted objects are visible for not less than 1 850 metres;
- (c) take-offs and landings at aerodromes with an aerodrome control service are performed in accordance with an air traffic control clearance; and
- (d) take-offs and landings at other aerodromes are not made while other aircraft operations requiring position lights are in progress at that aerodrome.

### **Operation over populous areas**

**137.02.5** The pilot of an aircraft engaged in an agricultural operation over a populous area may, for the proper completion of the operation, fly below the minimum height prescribed in Part 91 if -

- (a) the operation is conducted on behalf of a Government department;
- (b) prior approval is obtained from the Director and the

operation is conducted in accordance with conditions and limitations determined by the Director;

- (c) the operation is conducted under the authority of an operating certificate issued in terms of Part 121, 127 or 135, as the case may be; and
- (d) the holder of the operating certificate has complied with regulation 137.04.3.

#### **Operation over non-populous area**

**137.02.6** Notwithstanding the provisions of Part 91, the pilot of an aircraft engaged in an agricultural operation may, during or for the purposes of the operation, fly at any altitude and at any distance from an obstruction if -

- (a) the operation is not conducted over a populous area;
- (b) the operation is conducted without creating a hazard to persons or property on the ground; and
- (c) the altitude and distance for all approaches, turns and departures are necessary for the operation.

#### **Fuel reserves**

**137.02.7** Notwithstanding the provisions of Part 91, the pilot of an aircraft engaged in an agricultural operation shall ensure that the aircraft has the following minimum fuel reserves:

- (a) For aeroplanes, 30 minutes flight time;
  
- (b) for helicopters, 3 times the anticipated flight time or  
30 minutes flight time, whichever is the lesser.

**SUBPART 3**  
**SPECIAL FLIGHT RULES**

**General**

**137.03.1** This Subpart prescribes exceptions to the general operating and flight rules in Part 91, for the pilot of an aeroplane issued with a restricted category certificate of airworthiness in terms of Part 21, engaged in an agricultural operation.

**Maximum certificated mass**

**137.03.2** (1) Notwithstanding the provisions of Part 91 and subject to subregulation (2), the pilot of an aeroplane engaged in an agricultural operation, may take-off at a mass greater than the maximum certificated mass specified in the aeroplane flight manual if the pilot complies with the requirements as prescribed in Document NA-CATS-OPS 137.

(2) Where there is a third party risk as specified in Document NA-CATS-OPS 137, the pilot shall determine the maximum take-off mass from the requirements prescribed in regulations 137.03.3 and 137.03.4.

**Take-off distance and flight path**

**137.03.3** (1) Where there is a third party risk as specified in Document NA-CATS-OPS 137, the pilot of an aeroplane engaged in an agricultural operation shall, notwithstanding the provisions of Part 91 and subject to subregulation (2), ensure that the take-off distance available is greater than the take-off distance specified in the aeroplane flight manual, multiplied by a factor of 1.2.

(2) When calculating the take-off distance, the pilot shall take

the following factors into account:

- (a) The mass of the aeroplane at the commencement of the take-off run;
- (b) the pressure altitude of the aerodrome;
- (c) the ambient temperature at the aerodrome;
- (d) the runway surface type and condition;
- (e) the runway slope in the direction of take-off; and
- (f) not more than 50% of the headwind component or not less than 150% of the tailwind component.

(3) Where there is no third party risk as specified in Document NA-CATS-OPS 137, the pilot is not required, notwithstanding the provisions of Part 91, to comply with -

- (a) the take-off distance specified in the aeroplane flight manual; and
- (b) where applicable, the take-off flight path gradient specified in the aeroplane flight manual.

#### **Take-off flight path**

**137.03.4** (1) Where there is a third party risk as defined in Document NA-CATS-OPS 137, the pilot of an aeroplane engaged in an agricultural operation



shall ensure that, notwithstanding the provisions of Part 91, the take-off flight path clears all obstacles by -

- (a) a vertical distance of at least 50 feet plus  $0.025D$ ; or
- (b) a lateral distance of at least 30 metres plus  $0.1D$ ,

where  $D$  is the horizontal distance travelled by the aeroplane from the end of the take-off distance available.

(2) When calculating compliance with subregulation (1), the pilot shall take the following factors into account:

- (a) The take-off flight path shall begin at a height of 50 feet above the take-off surface at the end of the take-off distance required by regulation 137.03.3(1) and (2) and end at a height of 500 feet above the take-off surface;
- (b) the aeroplane shall not be banked at an angle exceeding 20 degrees; and
- (c) obstacles which have a lateral distance greater than 150 metres from the planned flight path may be disregarded.

**SUBPART 4**  
**COMMERCIAL OPERATIONS**

**Records**

**137.04.1** (1) A holder of an operating certificate shall maintain the following records at the principal place of operation:

- (a) The name and address of each client;
- (b) the date of each agricultural operation;
- (c) the name and quantity of the material dispensed during each agricultural operation;
- (d) the name, address, licence number, and rating details of the pilot concerned;
- (e) the date on which an agricultural pilot rating was issued to the pilot concerned.

(2) The records shall be retained for a period of not less than 12 months from the date on which the operation is completed.

**Remote base operations**

**137.04.2** The holder of an operating certificate who operates an aircraft engaged in an agricultural operation, from a base other than the principal place of operation, for a period of 14 or more consecutive nights, shall appoint a base pilot who -

- (a) holds a valid agricultural pilot rating;
- (b) is responsible for the operations from that remote base;  
and
- (c) may be responsible for arranging work rosters and  
maintaining records.

### **Operations over populous areas**

**137.04.3** The holder of an operating certificate who wishes to operate an aircraft engaged in an agricultural operation over a populous area shall -

- (a) prepare a plan of the operation, in conjunction with,  
and for the briefing of, all personnel and organisations  
involved in the operation, containing -
  - (i) consideration of obstructions to flight;
  - (ii) the emergency landing capabilities of the air-  
craft used; and
  - (iii) any co-ordination necessary with the air traffic  
service unit concerned;
- (b) give prior written notification to the local authority  
of the area in whose jurisdiction the operation is to be  
performed;

- (c) give notice of the operation to the public by an effective means;
- (d) ensure maximum safety to persons and property on the ground, consistent with the operation; and
- (e) ensure that the aircraft has, within the preceding 100 hours of time in service -
  - (i) had mandatory periodic inspection; or
  - (ii) been inspected under a progressive inspection programme,

in accordance with the regulations in Part 43.

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