



GOVERNMENT GAZETTE

OF THE

REPUBLIC OF NAMIBIA

N\$3.83

WINDHOEK - 20 August 1997

No. 1650

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General Notice

MINISTRY OF WORKS, TRANSPORT AND COMMUNICATION

No. 231

1997

PROPOSED CIVIL AVIATION REGULATIONS :

PART 43 - AIRCRAFT : GENERAL MAINTENANCE 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 maintenance 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 Maintenance Rules set out in Schedule 3. The proposed regulations are the first set in a series to be published and they represent Part 43 of the proposed structure.

The proposed regulations on General Maintenance Rules make provision for certain information to be contained in a document called Document NA-CATS-GMR. 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 maintenance 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

Private Bag 13341

WINDHOEK

Attention : Mr Louis Lourens

Telephone : 208-2159

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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 Maintenance 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>
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SCHEDULE 2

Definitions

In these regulations, unless the context otherwise indicates -

“control system” means a system by which the flight path, attitude or propulsive force of an aircraft is changed, including the flight, engine and propeller controls, the related system controls and the associated operating mechanisms;

“Document NA-CATS-AR” means a document on the Namibian Civil Aviation Technical Standards relating to airworthiness requirements, which is published by the Director in terms of the Act;

“Document NA-CATS-GMR” means a document on the Namibian Civil Aviation Technical Standards relating to general maintenance rules, which is published by the Director in terms of the Act;

“maintenance” means all work done in accordance with manufacturers’ recommendations and approved maintenance schedules and includes inspection, adjustment, replacement, rectification, repair, modification, overhaul, manufacturing and testing; and

“the Act” means the Aviation Act, 1962 (Act 74 of 1962).

SCHEDULE 3
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- 43.01.2 Falsification, reproduction or alteration of maintenance documents

SUBPART 2 : MAINTENANCE

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- 43.02.2 Carrying out of maintenance
- 43.02.3 Recording of overhaul
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- 43.04.1 Certifying review

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

43.01.1 (1) This Part shall apply to the maintenance, and the release to service after maintenance, of -

- (a) aircraft registered in Namibia; and
- (b) aircraft components to be fitted to such aircraft.

(2) This Part shall not apply in respect of any -

- (a) hang glider;
- (b) paraglider;
- (c) unmanned free balloon;
- (d) captive balloon;
- (e) kite;
- (f) model aircraft;
- (g) parachute; or
- (h) powered paraglider.

Falsification, reproduction or alteration of maintenance documents

43.01.2 No person shall make or cause to be made -

- (a) any fraudulent or false entry in any record or report which is required to be made, kept, or used to show compliance with any requirement prescribed in this Part; or
- (b) any reproduction or alteration for fraudulent purposes, of any record or report made in terms of the provisions of this Part.

SUBPART 2
MAINTENANCE

Persons to carry out maintenance

43.02.1 (1) Subject to the provisions of subregulations (2) and (3), no person shall carry out maintenance on an aircraft or aircraft component unless such person -

- (a) is the holder of an aircraft maintenance engineer licence with an appropriate rating issued in terms of Part 66;
- (b) carries out maintenance under the direct supervision of the holder of an aircraft maintenance engineer licence with an appropriate rating issued in terms of Part 66; or
- (c) is authorised by the holder of an aircraft maintenance organisation approval with an appropriate rating issued in terms of Part 145, to carry out maintenance within the scope of such approval.

(2) The holder of a pilot licence with an appropriate type rating issued in terms of Part 61, may carry out the maintenance as prescribed in Document NA-CATS-GMR if -

- (a) such holder is the owner or operator of the aircraft; and
- (b) the aircraft is used for general operations.

(3) Any person may carry out maintenance on a Group A aircraft

or a Group B aircraft, or any component thereof, if such person -

- (a) is authorised by the body or institution designated by the Director in terms of Part 149, to carry out the maintenance; or
- (b) carries out the maintenance under the direct supervision of a person authorised by the body or institution referred to in paragraph (a).

Carrying out of maintenance

43.02.2 Any person who carries out maintenance on an aircraft or aircraft component shall -

- (a) have available adequate accommodation and facilities for the necessary disassembly, proper inspection and reassembly of the aircraft or aircraft component;
- (b) use methods, techniques and practices which -
 - (i) are prescribed in the current manufacturer's maintenance manual or any instructions for continued airworthiness; or
 - (ii) are approved by the Director;
- (c) use the tools, equipment and test apparatus necessary to ensure that the maintenance is carried out in accordance

with the appropriate manufacturer's requirements or standard practices approved by the Director;

- (d) on completion of the maintenance, ensure that the condition of the aircraft or aircraft component is satisfactory for release to service and is at least equal to its original or properly modified condition with regard to -
 - (i) aerodynamic function;
 - (ii) structural strength;
 - (iii) resistance to vibration and deterioration; and
 - (iv) other qualities affecting airworthiness;
- (e) use any special or test equipment recommended by the manufacturer, or equivalent equipment approved by the Director; and
- (f) if maintenance is carried out on an aircraft operated under an operating certificate, carry out such maintenance in accordance with the operator's operations manual.

Recording of overhaul

43.02.3 No person shall state in any maintenance document entry required by the Regulations that an aircraft, airframe, engine or engine module, propeller or other

aircraft component, has been overhauled unless it has been -

- (a) disassembled, cleaned, inspected and repaired as necessary, and reassembled, using methods and techniques approved by the Director; and
- (b) tested in accordance with -
 - (i) current standards and technical data which have been developed and documented by the holder of a type certificate or a supplemental type certificate issued in terms of Part 21; or
 - (ii) other standards or technical data approved by the Director.

Maintenance for IFR operations

43.02.4 Any person who carries out an inspection of or maintenance on an aircraft radio station in an aircraft to be used under IFR, shall carry out the inspection as prescribed in Document NA-CATS-GMR.

Progressive inspections

43.02.5 Any person who carries out a progressive inspection in accordance with a progressive inspection programme shall -

- (a) at the start of the progressive inspection cycle, inspect the aircraft completely; and

- (b) after the initial inspection, conduct routine inspections and detailed inspections in accordance with the progressive inspection programme.

Mandatory periodic inspections

43.02.6 Any person who carries out a mandatory periodic inspection shall carry out the tests and inspections as prescribed in Document NA-CATS-GMR.

Altimeter system tests and inspections

43.02.7 Any person who carries out altimeter system tests and inspections shall -

- (a) perform the tests and inspections as prescribed in Document NA-CATS-GMR; and
- (b) for the altimeter tests, record on the altimeter case, the date and maximum altitude to which the altimeter has been tested.

ATC transponder tests and inspections

43.02.8 Any person who carries out ATC transponder tests and inspections shall perform the tests and inspections as prescribed in Document NA-CATS-GMR.

Emergency location beacon tests and inspections

43.02.9 Any person who carries out emergency location beacon tests and

inspections shall perform the tests and inspections as prescribed in Document NA-CATS-GMR.

Inspection requirements

43.02.10 Any person who carries out an inspection shall -

- (a) carry out the inspection so as to determine that the aircraft or aircraft component under inspection, complies with all appropriate airworthiness requirements prescribed in Part 21; and
- (b) if carrying out a mandatory periodic inspection, use a checklist which includes the scope and detail of the tests and inspections referred to in regulation 43.02.6.

Non-destructive testing

43.02.11 Any person who carries out maintenance on an aircraft or aircraft component where the applicable maintenance data requires a non-destructive test as specified in Document NA-CATS-GMR, shall -

- (a) be the holder of a certificate appropriate to the technique being used, or an equivalent certificate approved by the Director; and
- (b) perform the non-destructive test using appropriate methods, techniques and practices approved by the Director.

Airworthiness limitations

43.02.12 Any person who carries out maintenance specified in the Airworthiness Limitations section of a manufacturer's maintenance manual, or any instructions for continued airworthiness, shall carry out the maintenance in accordance with that section.

Maintenance records

43.02.13 (1) Any person who carries out maintenance on an aircraft or aircraft component shall record, on completion of the maintenance -

- (a) details of the maintenance including, where applicable, the identity of the inspection and any approved data used;
- (b) for a progressive inspection, whether a detailed inspection or routine inspection of the particular components or areas of the aircraft was carried out;
- (c) the serial numbers, if any, of components removed or fitted;
- (d) details of measurements or test results obtained, including the results of any ground or air tests;
- (e) for an altimeter system test and inspection, the date and maximum altitude to which the altimeter has been tested;
- (f) the date of completion of such maintenance;

- (g) the name of the person completing such maintenance, if other than the person certifying the release to service;
 - (h) the location and, if applicable, the name of the facility where such maintenance was carried out; and
 - (i) where such maintenance has been carried out as a consequence of the failure of any equipment, or damage caused by forced landing or accident, the reasons for carrying out the maintenance.
- (2) The person who carries out the maintenance shall -
- (a) record the details referred to in subregulation (1) in the appropriate logbook or in a maintenance record approved by the Director;
 - (b) record the details legibly and in ink or other permanent material; and
 - (c) where worksheets or other associated maintenance records are used to document the details of the maintenance -
 - (i) reference those records in the logbook, or in the maintenance record approved by the Director; and
 - (ii) retain the records for the appropriate period prescribed in the Regulations.

Modifications

43.02.14 (1) No person shall, without the prior written approval of the Director, carry out any modifications, including changes to equipment or the installation thereof, which affect, or are likely to affect, the serviceability of the aircraft, or the safety of its occupants or of any other persons or property.

(2) Before the approval of the Director is granted for a modification referred to in subregulation (1), the owner of the aircraft, or any other person who applies for the modification, shall furnish the Director with such information, data, calculations, reports on tests, drawings or wiring diagrams relating to the design, and proof of effectiveness or airworthiness of such modification, as the Director may require.

(3) Notwithstanding the provisions of subregulations (1) and (2), such modifications as may from time to time be recommended by the manufacturer of the type of aircraft or equipment concerned, may be carried out if the modifications are carried out in accordance with the said manufacturer's recommendations.

Recording of major repairs and modifications

43.02.15 Any person who carries out a major repair or a major modification shall, in addition to the entry referred to in regulation 43.02.13, record the repair or modification, and process the certificate relating to the maintenance of the aircraft, in the manner as prescribed in Document NA-CATS-GMR.

Test flights

43.02.16 (1) After any major repair or major modification to an aircraft, test

flights shall, if required by the Director, be carried out in the aircraft under such conditions and in such manner as the Director may determine.

(2) No passengers, cargo or mail shall be transported for reward in any aircraft undergoing a test flight.

Temporary and permanent repairs after accidents or incidents

43.02.17 Any temporary or permanent repair to an aircraft or aircraft component which has been damaged after an accident or an incident, shall be carried out in accordance with the requirements as prescribed in Document NA-CATS-GMR.

Aircraft compass requirements

43.02.18 Any compass fitted to an aircraft, shall be swung and maintained in accordance with the requirements as prescribed in Document NA-CATS-GMR.

SUBPART 3
RELEASE TO SERVICE

Persons to certify release to service

43.03.1 (1) Subject to the provisions of subregulations (2) and (3), no person shall certify an aircraft or aircraft component for release to service after maintenance unless such person -

- (a) is the holder of an aircraft maintenance engineer licence with an appropriate rating issued in terms of Part 66;
- (b) is authorised by the holder of an aircraft maintenance organisation approval with an appropriate rating issued in terms of Part 145, to certify maintenance within the scope of such approval;
- (c) is authorised by the Director to certify an aircraft or aircraft component for release to service; or
- (d) for maintenance carried out outside Namibia, holds a licence or equivalent authorisation issued by an appropriate authority for the type of aircraft or aircraft component.

(2) The holder of a pilot licence with an appropriate type rating issued in terms of Part 61, may certify maintenance which has been carried out in accordance with the conditions referred to in regulation 43.02.1(2).

(3) Any person may certify a Group A aircraft or a Group B aircraft, or any component thereof, for release to service if such person is authorised to certify maintenance by the body or institution designated by the Director in terms of Part 149.

Requirements for certifying release to service

43.03.2 No person shall certify an aircraft or aircraft component for release to service after maintenance unless such maintenance has been carried out in accordance with the provisions of this Part and, in respect of such maintenance, the aircraft or aircraft component is fit for release to service.

Certifying after inspection

43.03.3 Any person who certifies an aircraft or aircraft component for release to service after carrying out an inspection shall enter in the appropriate logbook or other maintenance record approved by the Director -

- (a) the statement as prescribed in Document NA-CATS-GMR; and
- (b) in addition to the statement referred to in paragraph (a), his or her signature, licence or authorisation number, and the date of the entry.

Certifying after maintenance

43.03.4 (1) Any person who certifies an aircraft or aircraft component for release to service after maintenance shall enter in the appropriate logbook or other

maintenance record approved by the Director -

- (a) the statement as prescribed in Document NA-CATS-GMR; and
- (b) in addition to the statement referred to in paragraph (a), his or her signature, licence or authorisation number, and the date of the entry.

(2) If components are not installed in, or allocated to an aircraft, the person certifying release to service shall certify the release to service in the appropriate form as prescribed in Document NA-CATS-GMR.

Discrepancies

43.03.5 Any person who carries out an inspection and who does not release the aircraft or aircraft component to service shall -

- (a) provide the owner or operator with a signed and dated list of the discrepancies, including any equipment which is marked "inoperative" in terms of paragraph (b), if such person is satisfied that the aircraft -
 - (i) is not airworthy; or
 - (ii) does not comply with the applicable type certificate data, airworthiness directives or other approved data upon which the airworthiness of such aircraft depends;

- (b) for those items which appear to be imperative, place a label on each inoperative instrument and the cockpit controls of each item of inoperative equipment, marking each item "inoperative";
- (c) enter the appropriate statement as prescribed in Document NA-CATS-GMR, in the appropriate logbook or technical log; and
- (d) enter his or her signature, licence or authorisation number, and the date of the entry.

Flight manual data

43.03.6 If the approved data for a repair or a modification to an aircraft or aircraft component include changes to the operating limitations or flight data in the aircraft flight manual, the person certifying release to service shall not certify the release to service until the changes have been incorporated into the flight manual.

Duplicate inspection of controls

43.03.7 (1) No person shall certify an aircraft or aircraft component for release to service after the initial assembly, subsequent disturbance or adjustment of any part of an aircraft or component control system unless -

- (a) a duplicate safety inspection of the control system has been carried out; and
- (b) the duplicate safety inspection is recorded and certified

in the appropriate logbook, or other maintenance record approved by the Director.

(2) A duplicate safety inspection authorised in terms of subregulation (1), shall consist of -

- (a) an inspection by a person referred to in regulation 43.03.1 to certify the release to service of the control system after maintenance; and
- (b) a second inspection carried out by another person who is a person referred to in regulation 43.03.1.

Ground running checks - reciprocating engines

43.03.8 No person shall certify a reciprocating engine-powered aircraft for release to service after a mandatory periodic inspection unless such person ensures that -

- (a) a ground run of the aircraft engine has been carried out to determine satisfactory performance, in accordance with the manufacturer's recommendations, for -
 - (i) the power output (static and idle RPM);
 - (ii) the ignition system;
 - (iii) the fuel and oil pressure; and

- (iv) the cylinder or coolant temperature, and oil temperature; and
- (b) the ambient conditions of temperature and atmospheric pressure and details of the results are recorded -
 - (i) in the appropriate engine or aircraft logbook; and
 - (ii) in a maintenance record approved by the Director.

Ground running checks - turbine engine

43.03.9 No person shall certify a turbine engine-powered aircraft for release to service after a mandatory periodic inspection unless such person ensures that -

- (a) a ground run of the aircraft engine has been carried out to determine satisfactory performance, in accordance with the manufacturer's recommendations; and
- (b) the ambient conditions of temperature and atmospheric pressure and the details of the results are recorded -
 - (i) in the appropriate engine or aircraft logbook; or
 - (ii) in a maintenance record approved by the Director.

Technical log completion

43.03.10 No person shall certify an aircraft or aircraft component for release

to service in an aircraft technical log unless each applicable section of the technical log is completed, including details of any deferred rectification.

SUBPART 4
REVIEW OF MAINTENANCE

Certifying review

43.04.1 Any person who carries out and certifies an annual review of maintenance for an aircraft shall enter -

- (a) the statement as prescribed in Document NA-CATS-GMR, in the aircraft logbook or other technical record approved by the Director;
- (b) in addition to the statement referred to in paragraph (a), his or her signature, licence or authorisation number, and the date of the entry; and
- (c) in the appropriate section of the aircraft technical log, the date of the review.