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## **DCA (AIRCRAFT) NOTICES**

### **RATINGS AND CATEGORIES OF AIRCRAFT MAINTENANCE ENGINEERS LICENCES**

1. The experience requirements for the grant, extension and renewal of Aircraft Maintenance Engineers Licences are as prescribed in section 'L' of the British Civil Airworthiness Requirements, a clear understanding of which depends on cross reference between this Notice and Section 'L'
2. Copies of Section 'L' may be ordered from the Civil Aviation Authority Printing and Publications Services, Greville House, 37 Gatton road, Cheltenham Glos, GL 50 2BN U.K.
3. The Malawi Government concurs with the standards proposed by the International Civil Aviation Organisation (ICAO) for the grant of type I and II ratings which are equivalent to categories 'B' and 'D' and Categories 'A' 'C' 'R' and 'X' respectively of Malawi Licence.
4. The extent to which the privilege of a type rated licence may be exercised is shown in the current issue of D.C.A. Notice A2. where a new aircraft type is introduced onto the Malawi register, agreement for a Licensed Aircraft Maintenance Engineers to make certificates in respect of that aircraft must be obtained from the Airworthiness Section of the Department of Civil Aviation.

## **5. CATEGORIES 'A' AND 'B' AEROPLANES**

When a licence makes reference to the following groups, the rating of the licence includes the aeroplanes specified in the relevant group(s)

### **GROUP 1**

- 1.1 Unpressurised metal and/or fabric covered aeroplanes not exceeding 2730 kg (6000Ib) maximum authorised take-off weight with fixed landing gear only.
- 1.2 Unpressurised metal aeroplanes not exceeding 2730kg (6000Ib) maximum authorised take-off weight with retractable landing gear.

### **GROUP 2**

- 2.1 Unpressurised metal aeroplanes not exceeding 5700kg (12,500Ib) maximum authorized take-off weight with fixed landing gear only.
- 2.2 Unpressurised metal aeroplanes not exceeding 5700kg (12,500Ib) maximum authorized take-off weight with retractable landing gear.
- 2.3 Unpressurised metal aeroplanes exceeding 5700kg (12,500Ib) maximum authorized take-off weight with retractable landing gear.

Reference will not be made to the following groups the types will be specifically detailed in the licence.

### **GROUP 3**

3.1. Pressurised metal aeroplanes not exceeding 5700kg (12,500Ib) maximum authorized take-off weight.

3.2 Reserved.

### **GROUP 4.**

4.1 Pressurised metal aeroplanes exceeding 5700kg (12,500Ib) maximum authorized take-off weight.

4.2 Reserved.

**GROUP 5.** Reserved

NOTE 1) Category 'B' type ratings are not granted for the types in groups 3 and 4.

2) The extent to which the privileges of a type rated Category 'A' licence may be exercised in respect of Instruments, electrical systems and Automatic Pilots is shown in D.C.A. Notice A2.

## 6. **CATEGORY 'C' AND 'D' ENGINES**

When a licence makes reference to the following groups, the ratings of the licence include the engines specified in the relevant group(s).

### **GROUP 1**

- 1.1 Unsupercharged reciprocating piston engines fitted with fixed pitch propellers.
- 1.2 Unsupercharged reciprocating piston engines fitted with variable pitch propellers.

### **GROUP 2**

- 2.1 Supercharged/Turbocharged or Geared reciprocating piston engines.
- 2.2 Reserved.

Reference will not be made to the following groups, the type will specifically detailed in the Licence.

### **GROUP 3**

- 3.1 Propeller turbine Engines including, where so endorsed, the associated A.P.U. Installation.
- 3.2 Reserved

## **GROUP 4**

4.1 Jet Turbine engines including, where so endorsed, the associated A.P.U. installations.

4.2 Reserved

**NOTES** (1) Category 'D' Type Ratings are not granted for the types in groups 3 and 4.

(2) The extent to which the privileges of a type rated category 'C' licence may be exercised in respect of Instruments and Electrical Systems is shown in D.C.A. Notice A2.

(3) For Engines of a modular construction replacement of rotating parts may be carried out subject to approval by the D.C.A.

## **7. CATEGORY 'A' AND 'C' AND 'B' ROTORCRAFT**

Reference will not be made to the following paragraphs, the rotorcraft and associated Engine(s) will be specifically detailed in the Licence.

## **GROUP 1**

1.1 Piston Engines rotorcraft

1.2 Reserved.

## **GROUP 2**

2.1 Turbine Engined rotorcraft

2.2 Reserved

- NOTICE:** (a) Category 'B' or 'D' Type ratings are not granted for the types in groups 2.
- (b) The extent to which the privilege of a type rated category 'A' and 'C' rotorcraft licence may be exercised in respect of Instruments Electrical systems and Automatic stabilizers/Automatic Pilots is shown in D.C.A Notice A2.
- © For engines of a Modular construction the replacement of rotating parts may be carried out subject to approval by D.C.A.

## **8. Category 'X' Instruments**

- NOTES:** (a) A type rated licence which is valid for category 'X' Instruments does not include any camps or Automatic pilot system. Where a system is a combined flight director/automatic pilot, the type rated licence does not include those items of equipment used solely in the automatic pilot.
- (b) A type rated licence which is valid for category 'X' Instruments does not include Inertial Navigation systems unless specifically endorsed to cover this equipment. See D.C.A Notice A31 for endorsement procedure.

## **GROUP 1**

Where a type rated licence makes reference to group 1, the rating of the licence includes all instrumentations only. This excluded any aircraft which has installed a flight path computing system (Flight Director System) or Air Data Computation systems.

## **GROUP 2**

Where a type rated licence, makes reference to group 2, the rating of the licence includes all instrumentation in aircraft (excluding aircraft listed in paragraph 11 and aircraft fitted with any of the systems listed in group 3 and 4) which have installed either of the following systems:

- (a) Smiths flight system.
- (b) Sperry Zero Reader ZLL, ZL2 Flight Directors System.

## **GROUP 3**

Where a type rated licence makes reference to group 3 the rating of the licence includes all instruments in aircraft (excluding aircraft listed in paragraph 11 and aircraft fitted with any of the systems listed in group 4) which have installed any of the following systems:

- (a) Altimatic VF/D, XF/D Integrated Flight Systems

- (b) Bendix FCS 810 Integrated Flight Systems 200, 400, 800 series.

#### **GROUP 4**

Where a type rated licence makes reference to group 4, the rating of the licence includes all instruments in the aircraft (excluding aircraft listed in paragraph 11) which have installed any of the systems.

- (a) Bendix 100, 200, 300 and FGS 70 Flight Director Systems.
- (b) Bendix M4D-IFCS
- (c) Collins FD 103, FD 104, FD 105, FD 107, FD 108, FD 109, FD 110, FDS 112, and FGS 80 Flight Director Systems.
- (d) Edo-Aire Mitchell Century IV and FD 282.
- (e) King KFC 300 Flight Director System.
- (f) Sperry Integrated Instrument System and starts IVB System, SPI 77, SPZ 200D, 500C, Hel Cis I and II Flight Director System,

#### **9. CATEGORY 'X' AUTOMATIC – PILOTS**

**NOTES:** (1) For purpose of Licensing Automatic stabilizers are deemed to be automatic pilots.

- (2) Automatic Pilots include related systems such as yaw dampers and/or roll dampers, much trim systems and auto-throttle.

## **GROUP 1**

Where a type rated licence makes reference to group 1, the rating of the licence will include all automatic-pilots not couple to radio information as listed below:-

Bendix M4D

Britain B2, B3, BSS

Cessna NAV-O-MATIC 200

Edo-Aire Mitchell Century 1 and 11

Piper/Mitchell Auto-control 1.11 and Auto-flite

Sperry AL 1, AL 3

Sperry A3, A3A

Smith SEP 2

Tactair

## **GROUP 2**

Where a type rated licence makes reference to group 2, the rating of the licence will include all automatic pilots which are radio couple as listed below excluding those automatic pilots listed in Group 3.

Bendix PB10

Britain B4 and B5

Cessna Nav-0-Matic 200A, 300, 300A, and 400A

Crouzet Radiostat

Edo-Aire Mitchell century 1 and 11

Piper/Mitchell Altimatic 1, 11 Auto-control 11 and 11B and  
Auto flite with tracker

Smiths SEP1

Sperry AL30

### **GROUP 3**

Where a type rated licence makes reference to group 3, the rating of the licence will include automatic pilots which are radio coupled as listed below, excluding those installed in aircraft in paragraph 11 of this Notice A1.

Bendix MAX, M4D, PB20 and FGS70

Cessna Nav-O-Matic 300B, 400B, 800 and 800a

Collins AP101, AP104, AP105, AP107 FCS105 and APS80

Edo-Aire Mitchell Century III, IIIC, IV and AP282

Honeywell H14

JET F110, FC 200

King 14, KFC 200, and KFC 300

Lear L2

Piper/Mitchell Altimatic III, IIIB, IIIC

V (FCS810 series) and Altimatic X

SMITHS SEP 2 and SEP 6

Sperry SPL 45, SP 3, A 12, SP 20, SP50G, SPZ 2000A and  
SPZ 500C

## **GROUP 4**

Where a type rated licence makes reference to group 4.1 and the 4.2 rating of the licence will include automatic pilots which are not coupled to radio information installed in rotorcraft listed below:-

- 4.1 Ferranti Automatic stabilizer FAS/2 SFENA Duplex ministab in Bell 212,  
SEFIM 85 E3
  
- 4.2. AFCS in Bell 212  
AFCS installed in Sikorsky S6IN  
SCAS installed in Augusta/Bell 206  
SAS installed in Sikorsky S58

## **GROUP 4**

Where a type rated licence makes reference to Group 4.1 and the 4.2 rating of the licence will include automatic pilots which are not couple to radio information installed in rotorcraft listed below:-

- 4.1 Ferranti Automatic stabilizer FAS/2 SFENA Duplex ministab in Bell 212,  
SFIM 85 E3
  
- 4.2 AFCS in Bell 212  
AFCS installed in Sikorsky S6IN  
SCAS installed in Augusta/bell 206  
SAS installed in Sikorsky S58

## **GROUP 5**

Where a type rated licence makes reference to Group 5, the f the licence will include automatic pilots which are radio couple installed to rotorcraft as listed below:-

Sperry Helipilot IFR system

### **10. CATEGORY 'X' COMPASSES**

#### **GROUP 1**

Where a type rated licence makes reference to group 1, the rating of the licence will include all direct reading compasses and their compensation.

#### **GROUP 2**

Where a type rated licence makes reference to group 2 the rating of the licence will include all remote reading compasses and their compensation excluding those installed in aircraft listed in paragraph 11 of this notice.

### **11. MULTI CATEGORY 'X' INSTRUMENTS, AUTOMATIC PILOTS AND COMPASSES**

**NOTE:** A type rated licence which is valid for category 'X' instruments or multi category 'X' does not include inertial navigation equipment unless specifically endorsed to include this equipment see DCA Notice A31 for endorsement procedure.

## **GROUP 1**

Where a type rated licence makes reference to all or any paragraph in 1.1 or 1.2 etc the rating of the licence includes the general instrumentation, flight director automatic pilots and compass systems installed in the aircraft listed in the paragraphs specified.

1.1 Boeing 737 – 300 series

1.2 BAC 1-11 400, 475, 500 Series

1.3 Reserved

## **12. CATEGORY ‘X’ ELECTRICAL**

### **GROUP 1**

Where a type licence makes reference to group 1, the rating of the licence includes the electrical equipment installed in aircraft where the main generation system output is d.c. and in which secondary alternators having an individual rating thus exceeding 1.5 KVA may be fitted.

**NOTE:** Aircraft with alternators having a self-contained rectifier systems thus giving a d.c output, are included in group 1.

## **GROUP 2**

Where a type rated licence makes reference to group 2, the rating of the licence includes the electrical equipment installed in the aircraft where the main generation system output is d.c and 'frequency wild' alternators having an individual power rating in excess of 1.5 KVA are used for auxiliary services.

## **GROUP 3**

Where a type rated makes reference to group 3, the rating of the licence includes the electrical equipment installed in the aircraft where the main generation system output is 'frequency wild' a.c. and d.c power is supplied from Transformer rectified units.

When a licence makes reference to the following group, the rating of the licence includes the electrical equipment in the aircraft specified.

## **GROUP 4.**

Where a type rated licence makes reference to group 4, the rating of the licence includes the electrical equipment installed in aircraft where the main generation system output is 'constant frequency' a.c. obtained from alternators driven by constant speed drive units and d.c. power is supplied by transformer rectifier units.

4.1 BAC 1-11 AIRCRAFT

4.2 VC10 AIRCRAFT

13. **CATEGORY 'R' RADIO**

Where a type rated licence makes reference to all or any of groups 1,2 and 3, the ratings of the licence includes all types of radio systems listed in the specified group.

**GROUP 1**

Airborne Communication System including VHF, HF, voice Recorder and Audio equipment.

**GROUP 2**

Airborne Navigation Systems – including ADF, VOR, ILS and C.W Hyperbolic equipment.

**GROUP 3**

3.1 Airborne secondary Rader systems including MADHE, DME, and ATC Transponder.

3.2 Airborne Primary Radar, Pulse and F.M systems, including weather Radar, Doppler, Loran and Radio Altimeter equipment.

14. **Reserved**

## 15. EXTENSION

The Department of Civil Aviation will consider extension of licences in accordance with 15-1 or 15.2 as appropriate.

- 15.1. Group ratings to include one or more of the groups of aircraft and/or Engines specified as follows:

Category 'A' and 'B'

Group 1.1 and 1.2

Group 2.1 and 2.2

Category 'C' and 'D'

Group 1.1 and 1.2

Group 2.2

May be granted if the current licence is rated for a minimum of two types of difference manufacture in each sub-group.

- 15.2 Combine 'A' and 'C' all Piston Engined aeroplanes:-

Application may be made for this rating without examination subject to compliance with (a) to (c).

- (a) The applicant must hold a current Malawi Licence which has been Valid in category 'A' or 'C' for 15 years and in both categories for the 10 years immediately preceding the application.
- (b) Licence must include in each category a representative selection of types specified in groups 1.1 and 1.2 for both categories 'A' and 'B' and categories 'C' and 'D' of this Notice A1.
- (c) The applicant must be currently employed by an operator of aircraft registered in Malawi and must have be engaged on the maintenance of such aircraft during the 3 years immediately preceding the date of application.

**CANCELLATION:** This Notice cancels all previous issues of Notice A1 and amends the index to section 'A' accordingly.