



REPUBLIC OF BOTSWANA
CIVIL AVIATION AUTHORITY OF BOTSWANA
P. O. Box 250, GABORONE, BOTSWANA
Tel: +267 3688200 Fax: +267 3913121/3930165
www.caab.co.bw

CABY

18-2015

**CIVIL
AVIATION
BYE-LAW**

ESTABLISHMENT OF MINIMUM QUALIFICATIONS AND EXPERIENCE FOR PANS-OPS

Document No.: CABY 18//2015
11TH DEC 2015



PREAMBLE: These Bye-Laws are made by the Civil Aviation Authority of Botswana with the approval of the Minister of Transport and Communications under Section 8 (2) of the Civil Aviation Act, 2011.

CITATION: These Bye Laws may be cited as the Civil Aviation Authority of Botswana (Establishment of Minimum Qualifications and Experience for PANS-OPS Designers) Bye Laws.

1. PURPOSE

The purpose of this Civil Aviation Bye-Law (CABY) is to clarify the requirements for providing PANS – OPS operational requirements, Minimum Qualifications and Experience of Instrument Flight Procedure Designers.

2. APPLICABILITY

This Bye-Law shall apply to all PANS-OPS procedures specialists and service providers who are responsible for the design and amendment of flight procedures.

3. EFFECTIVITY

This Civil Aviation Bye-Law (18-2015) shall become effective immediately.

4. REFERENCES

- Civil Aviation (Air Navigation Services) Regulations, 2013 Regulations 222 and 223
- ICAO PANS – Aircraft operations Volume II (Construction of Visual and Instrument Flight Procedures) – DOC 8168
- Quality Assurance Manual for Flight Procedure Design Volume II - Flight Procedure Designer Training (Development of a Flight Procedure) – ICAO Doc 9906.

5. REQUIREMENTS

5.1 PANS-OPS operational requirements

The entity responsible for Instrument Flight Procedure (IFP) service shall :-

(a) Employ, contract, or engage sufficient personnel to plan, design, verify, and maintain the instrument flight procedures provided by the organization; and

(b) Establish a procedure for initially assessing, training, and maintaining, the competence of those personnel involved in the

planning, design, verification and maintenance of instrument flight procedures.

5.2 Personnel requirements of Instrument Flight Procedure Designers

5.2.1 Competency level

5.2.1.1 The Instrument Flight Procedure (IFP) design organisation shall ensure that a person designing or amending a flight instrument procedure demonstrates required competency level for flight procedure design. IFP designers shall acquire and maintain this competency level through training, supervised OJT, recurrent and refresher training.

5.2.1.2 Competency of the flight procedure designers shall be evaluated at regular intervals.

5.3 Minimum qualifications and experience of Instrument Flight Procedure Designers

5.3.1 Before an IFP designer is assigned any design duties he/she shall be able to meet the following requirements:-

5.3.1.1 Minimum Qualifications

- (a) Successful completion of the ICAO PANS-OPS course for the Basic Procedure Design Principles, Conventional Procedure relevant flight procedure type, and shall cover among others, Design Principles and RNAV Procedure Criteria; and
- (b) Completion of a minimum of two approved flight procedures of each type of the procedure under the supervision of a qualified and competent procedure designer.

5.3.1.2 Experience

- (a) A minimum of five years aviation experience in any of the following fields:-
 - (i) aeronautical information services officer;
 - (ii) aeronautical cartography officer;
 - (iii) a pilot;
 - (iv) air traffic controller; or
 - (v) Telecommunications Engineer or equivalent experience;

- (b) Familiarity with Auto CAD and Geographic Information Systems software applications.

5.4 Training of IFP designers

5.4.1 Training for flight procedure design shall include an initial training and recurrent training at periodic intervals. Initial training shall ensure that the flight procedure designer is able to demonstrate a basic level of competency that includes at least the following elements:-

- (a) Knowledge of information contained in the PANS-OPS, Volumes I and II and other related ICAO Standards and Recommended Practices;
- (b) Skills in the design of procedures;
- (c) Practical application of theoretical knowledge; and
- (d) Quality Management System (QMS).

5 GUIDANCE

The provisions of this Bye-Law shall be read together with the provisions of the Civil Aviation (Air Navigation Services) Regulations, CAO- DOC 8168 and ICAO Doc 9906.

Approved on this 22nd Day of MAY 2018



Onkokame K. Mokaila
Minister
Ministry of Transport and Communications

Made on this 22nd Day of MAY 2018



Puseletso G. Moshabesha
Chief Executive Officer
Civil Aviation Authority of Botswana