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The following circular is promulgated for information, guidance and necessary action

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Director General

GUIDANCE FOR INSTRUMENT RATING WITH PERFORMANCE BASED NAVIGATION (PBN)

REFERENCES:

- i. The Civil Aviation (personnel Licensing) Regulations, 2017
- ii. The Civil Aviation (Personnel Licensing) (Amendment) Regulations, 2023

1. INTRODUCTION

The aviation industry continues to grow in the advancements of technology and international standards. One of the most significant developments is the Performance-Based Navigation (PBN), which enables more precise and efficient aircraft navigation using modern avionics systems. In alignment with ICAO Annex 1 and the Civil Aviation (Personnel Licensing) Regulations, TCAA is enhancing the Instrument Rating (IR) training syllabus to include PBN.

This circular provides guidance to Approved Training Organisations (ATOs), flight instructors, Pilots and candidates on the integration of PBN in IR training programs. It also sets the framework for the transition period, implementation timeline, and regulatory expectations.

2. PURPOSE

This AIC is issued to inform all stakeholders of the mandatory incorporation of PBN training within the Instrument Rating (IR) syllabus, in accordance with Regulation 75 of the Civil Aviation (Personnel Licensing) Regulations, 2017.

The regulation mandates that instrument rating training must comply with current ICAO standards and must adequately prepare candidates and pilots for real-world navigation using PBN procedures. The integration of PBN ensures that pilots are proficient in using RNAV and RNP systems, which are now increasingly required in both domestic and international airspace. This process is essential to improve flight safety, efficiency, and interoperability within the global air navigation system.

3. APPLICATION IN APPROVED TRAINING ORGANISATIONS (ATOS)

3.1 All Approved Training Organisations (ATOs) offering Instrument Rating courses shall review their training programs to incorporate PBN elements. The updated training syllabus must include both theoretical and practical components of PBN, covering areas such as:

- i. PBN principles and navigation specifications
- ii. RNP and RNAV systems
- iii. PBN-specific flight planning and procedures
- iv. Aircraft system capabilities and limitations
- v. Human factors and operational considerations
- vi. Simulator or flight training exercises demonstrating PBN proficiency

3.2 Training shall be delivered in compliance with the relevant Authority-approved curriculum and should ensure candidates demonstrate competence in PBN operations prior to recommendation for the IR skill test.

3.3 The theoretical component shall be included as part of the IR knowledge syllabus, and the practical PBN component must be conducted either in an approved simulator (FFS or FNPT II) or in an aircraft equipped for PBN operations.

4. TRANSITION PERIOD FOR IMPLEMENTATION

4.1 The 24-month transition period from the date of issuance of this AIC is granted to all ATOs to enable full incorporation of PBN training into their IR syllabi. During this period:

- i. ATOs must submit their revised syllabi and lesson plans for approval by the TCAA.
- ii. Flight instructors must receive appropriate refresher or endorsement training in PBN instruction.
- iii. Necessary simulator or aircraft capability upgrades should be completed where applicable.

4.2 ATOs should use this time to develop, revise, and seek approval for their updated IR training syllabi incorporating PBN modules to ensure the syllabus meets regulatory requirements.

5. LIMITATION ON INSTRUMENT RATING WITHOUT PBN

5.1 Candidates who complete their IR training and testing without PBN components during the transition period or thereafter will be issued an Instrument Rating with the limitation: "IR – No PBN Privileges". This limitation reflects non-compliance with the full scope of required navigation competencies and will restrict such holders from operating in airspace or on procedures where PBN is required.

To remove this limitation, the holder must undergo PBN training and demonstrate competence in accordance with the approved syllabus through an assessment or flight test conducted by a Designated Flight Examiner.

5.2 (DFE) or Inspector

6. PBN TRANSITIONAL MEASURE

i. Pilots undergoing IR Renewal during the transition period

All pilots applying for IR renewal during the transition phase are required to submit a valid certificate demonstrating completion of Performance-Based Navigation (PBN) training and shall be compliant with IR training syllabus.

ii. Pilots undergoing Initial IR Training

Pilots undergoing initial instrument rating training must submit a certificate of completion that includes PBN training as part of the required documentation.

iii. Pilots Operating with existing IR prior to Renewal

Pilots currently operating with an existing IR and employed by approved AOC holder, prior to their renewal, must provide a company-issued endorsement in their logbook verifying their competency and authorization to operate in PBN environments provided the AOC has PBN training approved.

7.0 TRAINING SYLLABUS

For detailed procedures of training syllabus follow Instrument Rating with PBN Training Syllabus (TCAA-AC-SR-PEL056)
