



International Civil Aviation Organization

**THE NINTH MEETING OF PERFORMANCE BASED NAVIGATION
IMPLEMENTATION COORDINATION GROUP (PBNICG/9)**

Video Conference, 22 - 24 March 2022

Agenda Item 6: PBN Ops Approval

PBN OPERATIONAL APPROVAL IMPLEMENTATION AND THE CHALLENGES
(Presented by Indonesia)

SUMMARY

This paper presents an update of PBN Operational Approval data in Indonesia.

1. INTRODUCTION

- 1.1 Indonesia has started and rapidly improved the navigation specification either departure, enroute phase or approach phase in all area of Indonesia.
- 1.2 The operators (aircrafts) that operate flight along Indonesia ATS route where a Navigation Specification has been implemented should be authorized by Directorate General of Civil Aviation (refer to Civil Aviation Safety Regulation part 91 Amdt. 5).
- 1.3 Procedures to certify PBN Operational Approval is described in DGCA Staff Instruction 8900-4.1 that refer to ICAO Document 9997 PBN Operational Approval Manual.

2. DISCUSSION

PBN Operational Approval Implementation

- 2.1 To optimize the PBN Implementation and utilization, Indonesia is in process to increase the number of aircraft with PBN Approval and encourage the operators to implement PBN on their fleets (as applicable to the Navigation Specification).
- 2.2 To enhance the level of safety especially in area with terrain challenges, DGCA Indonesia has implemented RNP-AR approval to the operator. Also through this implementation, expected to increase effectiveness of PBN approach airspace.

PBN Operational Approval Data

- 2.3 The state has an obligation to ensure that every operator carries out procedures in accordance with those required by the regulation. The purpose of this regulation is to provide guidance on the operational approval process in the context of performance based navigation (PBN).
- 2.4 A Staff Instruction is intended to guide flight operation inspector during certification and operational approval.
- 2.5 DGCA evaluate and approve each type of PBN (RNAV 10, RNAV 5, RNAV 1 & 2, RNP 4, RNP 2, RNP 1, RNP 0.3, RNP APCH, RNP AR APCH or Advanced RNP).
- 2.6 Indonesia implement 5 phases of certification for operational approval.
- First phase of certification is reviewing the requirements : the aircraft eligibility comply with specific PBN application, the operating procedures, the maintenance procedures and the training program (Pilot, FOO, Engineer).
 - Second phase is operator submits to the DGCA a formal application with attachments of draft Operation Manual (OM part General, Aircraft Information, Training and MEL). The DGCA also assigns the project manager and the operational approval team for certification process.
 - The third phase is document evaluation which DGCA (operation & airworthiness inspector) and operator would discuss how to develop manual for continuing operational initial training and also recurrent.
 - The fourth phase is demonstration, this phase the operator would perform the operational, ground training, simulator training and dispatcher demonstration to determine whether it is feasible or not.
 - The fifth phase is approval phase where the operator will get an Ops Spec, the appropriate Authorization, Condition and Limitation (ACL) and also amendment to the OM and CMM. DGCA also be part of established surveillance program which perform by POI/PAI , surveillance shall be conducted in accordance with process as described specifically in staff instruction 8900-6.3 Auditing and Surveillance Procedure for Air Operator Certificate (AOC) Holders.
- 2.7 The state encourage the aviation industries to implement PBN in Indonesian airspace.

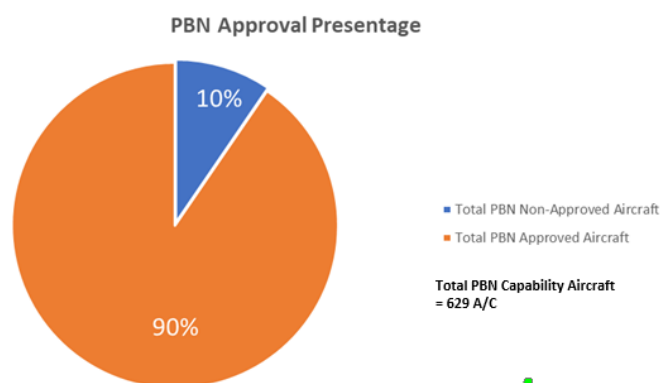


Figure 1. Comparison between aircraft that have the PBN capability and certified aircraft of PBN operation.

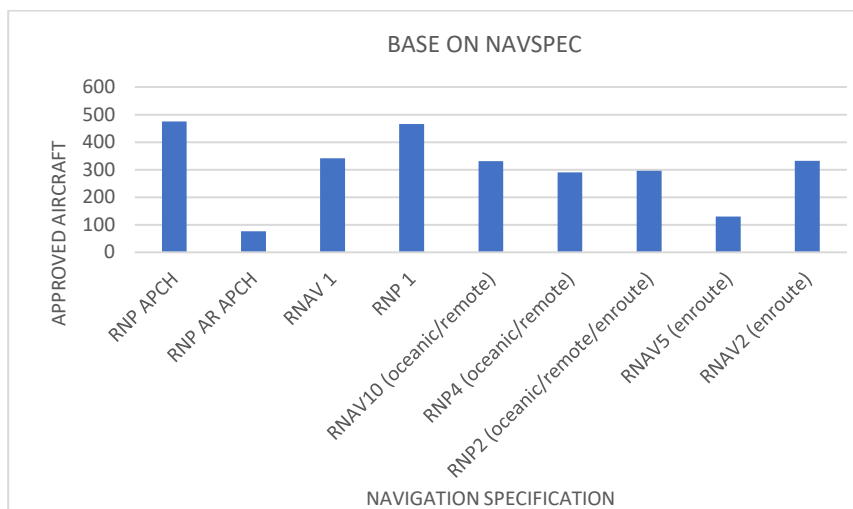


Figure 2. Comparison between aircraft that have the approved PBN navigation capabilities and certified aircraft of PBN operation.

PBN Operational Approval Challenges

2.8 The main challenge of PBN Operational Approval Implementation is the aircraft eligibility, especially for the advanced Navigation Specification routes like RNP AR, RNP 2 and RNP 4 because some of aircraft do not have capability to conduct those Navigation Specification.

3. ACTION REQUIRED BY THE MEETING

- 3.1 The meeting is invited to:
 - a) Note the information contained in this paper; and
 - b) Discuss any relevant matters as appropriate.

**Summary of the paper to be included in the meeting report:
 Indonesia has presented the PBN Operational Approval that consists the implementation, data and procedures, and the challenges.**