International Civil Aviation Organization

Thirteenth Meeting of The Performance Based Navigation Implementation Coordination Group (PBNICG/13)

(Bangkok, Thailand, 14-16 October 2026)

Agenda Item 3: States' PBN Implementation Progress and challenges/lessons learnt

PBN IMPLEMENTATION IN INDIA AN UPDATE

(Presented by India)

SUMMARY

This paper provides information on the progress of PBN implementation in India

1. INTRODUCTION

1.1 India is continuing its efforts towards harmonized PBN implementation aimed at improving overall operational efficiency, capacity, accessibility and safety.

2. DISCUSSION

PBN Implementation Status in Terminal and Approach

RNP APCH (LNAV, LNAV/VNAV)	RNP APCH (LPV)	SID (RNAV 1)	STAR (RNAV 1)	SID (RNP 1)	STAR (RNP 1)	RNAV 1 to ILS Transition
International Airports						
68 Procedures at **31** Airports	**04** Procedures at **03** Airports	Implemented at **16** airports	Implemented at **16** airports	Implemented at **02** airports	Implemented at **01** airport	**06** Procedures
Domestic Airports						
61 Procedures at **41** Airports	**19** Procedures at **12** Airports	-	-	Implemented at **01** airport	-	**01** Procedure

PBN Implementation Status in En-route

Following table, represent **En-route PBN implementation status**

PBN Routes	
RNAV 10	**47** International RNAV 10 Routes **10** Domestic RNAV 10 Routes
RNAV 5	**16** Domestic RNAV 5 Routes
RNAV 2	**03** Domestic RNAV 02 Routes
RNP 4	Nil
RNP 2	**25** Domestic RNP 02 Routes
TOTAL PBN ROUTES: 101	

PBN implementation status on RNAV xLS approaches:

2.1 As of 30.09.2026, RNAV/RNP(GNSS) initial and intermediate approach segments transitioning to ILS Final Approach Track have been implemented at 07 Airports (06 International and 01 Domestic). The integration of these RNAV transitions facilitates closed path routing to legacy precision finals, reducing track miles and ATC vectoring workload.

Implementation of LPV(GAGAN) Procedures:

2.2 Airports Authority of India (AAI) has promulgated 23 LPV(GAGAN) procedures so far and 30 additional procedures are at different stages of development.

2.3 However, in line with ICAO electronic bulletin EB 2026/13, all LPV procedures are planned to be reviewed. As an interim measure, the LPV OCAs have been temporarily raised to LNAV/VNAV OCA level and LPV only procedures have been temporarily withdrawn.

Implementation of Helicopter PinS approaches:

2.4 Airports Authority of India (AAI) has implemented 02 Helicopter PinS procedures at Undavalli Heliport, Andhra Pradesh.

Implementation of CAT H approaches for Helicopters:

2.5 Airports Authority of India (AAI) has implemented 02 RNP Approaches for Helicopters (CAT H) at HAL Bengaluru Airport.

Implementation of Point Merge System (PMS):

2.6 After nearly two years of continuous research and design, Point Merge System (PMS) has been promulgated for trial operations at Kempegowda International Airport (KIA), Bengaluru.

2.7 The implementation of PMS will significantly enhance the traffic handling capacity of the Air Traffic Control System.

2.8 It is further planned to implement PMS at other major airports in India, including Delhi, Mumbai, Hyderabad, Chennai and Kolkata etc. following a detailed study of airspace, traffic patterns and stakeholders' requirements.

3. ACTION REQUIRED BY THE MEETING

3.1 The meeting is invited to:

a) Note the progress of PBN implementation in India; and

b) discuss any relevant matters as appropriate.

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