International Civil Aviation Organization

THE THIRD MEETING OF ICAO ASIA/PACIFIC PERFORMANCE BASED NAVIGATION IMPLEMENTATION COORDINATION GROUP (PBNICG/3)

Bangkok, Thailand, 08-10 March 2016

Agenda Item 5: States' PBN Implementation Progress

b) Review and adoption of PBN Implementation Progress Report results

PBN IMPLEMENTATION IN PAKISTAN

(Presented by Pakistan)

SUMMARY

This paper presents the current status and plans for PBN implementation in Pakistan.

1. INTRODUCTION

1.1. The introduction of PBN has led to significant benefits which met the emerging requirements of the entire aviation community. PBN is therefore considered as highest priority of aviation industry as mentioned in Global Air Navigation Plan (4th Edition) and has significant role in ICAO Aviation Safety Block Upgrades.

1.2. Recognizing the benefits of PBN and considering ICAO PBN implementation timelines, Pakistan Civil Aviation Authority (PCAA) also developed National PBN Implementation Plan in May 2009 which was later reviewed in 2012. The plan had phased approach for PBN implementation across Pakistan in all phases of flights. The utmost efforts are being made to ensure RNP APCH procedures on all runway ends of major international airports within Pakistan by end 2016 as per ICAO timelines.

2. DISCUSSION

En-route Implementation

2.1. Pakistan is at the boundary of the ICAO Asia/Pacific Region interfacing with ICAO MID Region. It has adjoining airspace of Oman and Iran towards west where RNAV 5 is being used. RNP10 has been implemented in APAC region including afghan airspace earlier which is still being used to acquire the benefits of 50NM Horizontal Separation.

2.2. Pakistan earlier transformed a number of ATS Routes serving major traffic flows into PBN ATS routes with navigation specification of RNP10 and RNAV5 for en-route phase to support regional harmonization. As a step forward, Pakistan has implemented 50NM longitudinal separation in coordination with neighbouring states of Iran, India and Afghanistan with effect from 29th September 2015 on all RNP10 routes for airspace capacity enhancement. As Pakistan has surveillance

coverage over its major portion of airspace, the same separation is also being applied with the use of surveillance facility on all other routes as well.

2.3. The transformation of some more routes into PBN routes having regional traffic flows is also under consideration and will be completed by end 2016. Pakistan is also looking forward towards APAC seamless ATM implementation plan and will review navigation specifications of ATS Routes in harmony with the adjacent states as and when required to achieve PBN goals.

Terminal Implementation

2.4. Pakistan has obtained the real benefits in terms of access to the runway ends at three international airports i.e. JIAP Karachi, BBIAP Islamabad and Sialkot International Airport where no instrument approach procedures were available at one runway end except visual circling due to airspace constraints. RNP APCH procedures were implemented on these runways to provide runway aligned approaches thus increasing safety and efficiency.

2.5. There are 06 Pakistani airports in the ICAO regional air navigation plan with 16 runway ends. RNP1 STARs and RNP APCH procedures have been implemented for 10 runway ends of 05 airports so far whereas efforts are being made to cover remaining 06 runway ends during 2016 to meet ICAO PBN implementation timelines. Besides the airport covered in AOP table, Pakistan has also implemented RNP APCH procedures at some medium and small airports to facilitate aircraft operators. As a total, RNP APCH procedures for 21 Runway ends are now available at 11 airports in Pakistan.

2.6. In the terminal airspace where the arriving and departing flights manoeuvre from the airport to the en-route airspace and vice versa, PBN plays a vital role in enhancing safety and optimizing the capacity. RNAV Standard Instrument Departure (SIDs) is also under consideration with a view to restructure airspace in accordance with PBN airspace designing guidelines. This will enable the implementation of Continuous Descent Operations (CDO) and Continuous Climb Operations (CCO) at major airports of Pakistan.

Working Arrangements for PBN Region-wide implementation

2.7. ICAO APAC FPP office was established with objective to assist States to develop sustainable capability in the instrument flight procedure (IFP) domain so as to meet their commitments for Performance Based Navigation (PBN) implementation. FPP has played a vital role in PBN implementation through training and assistance in Flight Procedure Design. Pakistan has not only been participating in FPP training programs but has also provided regular support to the project by providing qualified PANS-OPS instructor whenever required by ICAO APAC FPP.

3. ACTION REQUIRED BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this papers; and

b) discuss any relevant matters as appropriate.

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