International Civil Aviation Organization

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

Bangkok, Thailand, 08 – 10 March 2016

Agenda Item 5: States' PBN Implementation Progress

UPDATE ON INDONESIA PBN IMPLEMENTATION

(Presented by DGCA Indonesia)

SUMMARY

This paper presents an overview of the Indonesian airports specificities as well as an update on the progress on PBN Implementation in Indonesia until 2015 and the work plan for 2016 and beyond.

1. INTRODUCTION

1.1 Implementation of PBN has been included in the DGCA Indonesia's policy priorities as was shown on its PBN action plan issued in 2011 and submitted to ICAO. DGCA Indonesia realize the importance of PBN implementation for enhancing safety, increase airspace capacity, as well as for achieving fuel efficiency and reducing emissions from the aviation sector.

1.2 Indonesia has 237 airports throughout the country. 159 of them are equipped with Navaid, 78 airports without Navaid, 52 airports have conventional approach procedure and 37 airports have PBN approach procedures.

1.3 Several of those airports, located in major cities, have quite busy traffic whilst many others are located in remote areas and difficult topography surrounded by mountainous areas.

1.4 For busy airports such as Jakarta, Denpasar, Surabaya and Makassar, besides improving safety, the implementation of PBN is key for increasing airspace capacity and airport efficiency.

1.5 On the other hand, for many airports the need of PBN is merely for safety reasons due to their difficult location, such as Ambon, Manado, Bandung, and most airports in Papua Island.

1.6 In addition to the implementation of PBN in all International airports as requested by ICAO Resolution A 37-11, for Indonesia has become as well a national priority the implementation of PBN in domestic airports to enhance operational safety.

2. DISCUSSION

2.1 Implementation Until 2015

Until 2015 Indonesia already develop PBN flight procedure as follows:

International Airports

- 3 SID/STAR RNAV 1 Published (Jakarta Soekarno Hatta, Bali & Surabaya).
- 3 RNP AR Published (Ambon, Menado & Bandung).
- 12 RNP APCH Published (Bali, Balikpapan, Batam, Jayapura, Kupang, Makassar, Padang, Palembang, Pekanbaru, Semarang, Lombok, Surabaya).

Domestic Airports

- 13 RNP APCH Published (Bengkulu, Palangkaraya, Banjarmasin, Gorontalo, Palu, Kendari, Sorong, Ayawasi, Kaimana, Merauke, Wamena, Nagan Raya, Sibolga).
- 9 RNP APCH Drafted (Inanwatan, Kambuaya, Bintuni, Ewer, Rendani, Bade, Kimam, Sarmi, Merdey).

2.2 Implementation Plan 2016 and Beyond

For 2016 and beyond Indonesia has plan to develop and publish following PBN flight procedure:

International Airports

- 22 Airports, PBN SID/STAR to be developed & published (Ambon, Balikpapan, Banda Aceh, Bandung, Batam, Biak, Jakarta Halim Perdanakusuma, Jayapura, Kupang, Makassar, Menado, Lombok, Medan, Padang, Palembang, Pekanbaru, Pontianak, Semarang, Solo, Tanjung Pinang, Tarakan, Yogyakarta)

- 10 Airports, PBN Approach to be developed & published (Banda Aceh, Biak, Jakarta Halim Perdanakusuma, Jakarta Soekarno Hatta, Medan, Pontianak, Solo, Tanjung Pinang, Tarakan, Yogyakarta).

Domestic Airports

- 78 Airports without Navaid, PBN Approach to be developed & published.

2.3 Implementation Strategy

To develop and publish so many PBN flight procedures DGCA Indonesia will collaborate with the following civil aviation stakeholders:

- Airnav Indonesia (ANSP).
- Airline Operators.
- Airport Operators.
- General Aviation.
- Military.
- Experts from ICAO & Aircraft Manufacturing Companies.

From these stakeholders DGCA Indonesia will establish two groups:

- PBN Task Force: with a small number of members on it, and tasked to prepare the concept of a PBN flight procedure design for a certain airport.

- PBN Working Group with bigger number of stakeholders on it, its function is to finalize the concept of the PBN flight procedure design for a certain airport with participation of the wider possible range of key involved stakeholders (DGCA, ANSP, ATC´s, Operators, Designers, Aircraft Manufacturers, etc.).

In commencing the implementation strategy DGCA Indonesia got support and assistance from international projects such as:

- ICAO TCB Project INS13801 (Environmental Measures in Civil Aviation).

- APEC-funded Enhancing Aviation Connectivity and Emissions Reduction via Implementation of PBN Assistance Program (TPT 05 2015A).

These projects are developing supporting activities such as: holding workshop, Task Force and Working Group meeting, sending a team of regional air navigation experts to Indonesia to assess the current PBN implementation status, review the current PBN implementation plans, discuss with the Air Navigation Service Provider and Civil Aviation Authorities, do a gap analysis, and develop a report with technical, operational and regulatory recommendations.

More information regarding the supporting activities of ICAO TCB Project INS13801 (Environmental Measures in Civil Aviation) are provided through IP with title “Indonesia PBN Implementation as Efficiency/Environmental Measure and Stakeholders Involvement”.

3. ACTION REQUIRED BY THE MEETING

3.1 The meeting is invited to note the information contained in this paper.

– – – – – – – – – – – – –