



ICAO

International Civil Aviation Organization

**Ninth Meeting of Performance Based Navigation
Implementation Coordination Group (PBNICG/9)**

Video Teleconference, 22 – 24 March 2022

Agenda Item 4: States' PBN Implementation Progress

INDONESIA INTERNATIONAL PBN ROUTES PLAN CITY PAIR

(Presented by INDONESIA)

SUMMARY

This paper presents Indonesia's plan for the implementation of international Performance-Based Navigation (PBN) RNP 2 ATS Route city pair

1. INTRODUCTION

1.1 Referring to the prior meeting facilitated by ARISE for ASEAN. It had been agreed by ASEAN Countries to improve the ATS route between city pairs in September 2020.

1.2 To prove a more efficient, safe, sustainable air transport, Indonesia has a plan for international PBN routes city pair and invited other related countries/stakeholders to consider and support the plan for enhancing international routes.

2. DISCUSSION

Existing Condition

2.1 Jakarta and Singapore are connected by ATS routes G579 and B470. This RNAV10/RNP10 route has been implemented with 20NM surveillance spacing.

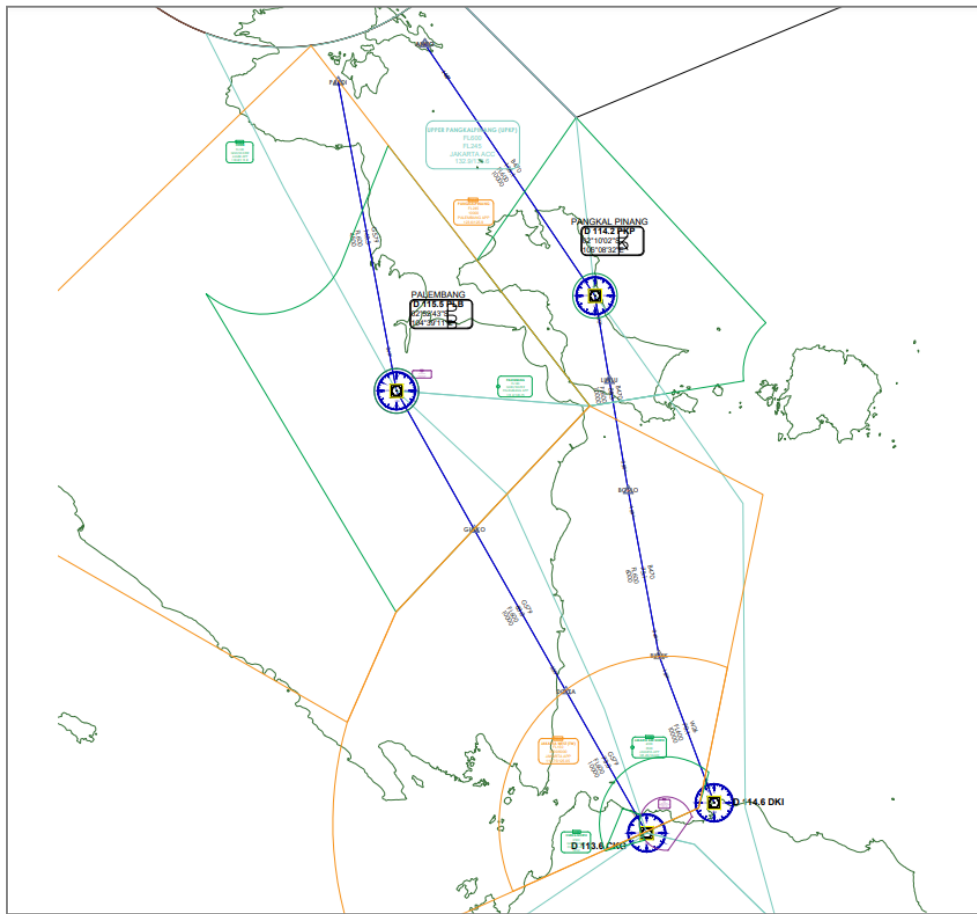


Figure 1: Existing routes between Jakarta and Singapore

2.2 Jakarta and Australia are connected by:

- a. Conventional separation of 15 minutes and 10 minutes is applied on A585, B325, B469 (non-R-NAV) routes and;
- b. 50NM separation is applied on L895, L896, L897 (RNAV10) routes.

Future Plan for Jakarta-Singapore Routes

2.3 It has been identified by data that the traffics operated between Jakarta and Singapore have the capability of Navigation Specification of RNP2.

2.4 To enhance the capacity, Indonesia plans to implement PBN RNP2 routes to Singapore. The new PBN route will give the most benefits between city pairs Jakarta and Singapore are as follows:

- a. Shorter route;
- b. Plenty of areas to develop parallel PBN routes;
- c. Improving airspace capacity;
- d. Easier to align with Melbourne FIR and Brisbane FIR for the next development.



Figure 2: Plan of PBN RNP2 city pair Jakarta-Singapore

Challenges for Jakarta-Singapore Routes Plan

2.5 The challenge to improve this PBN Route in this area:

- a. There are existing routes (conventional route) used between city pairs Jakarta (WIII) and Singapore (WSSS): G579 and B470;
- b. The separation that will be used between new PBN routes and the conventional route.

Planned Condition for Jakarta-Australia

2.6 It has been identified by data that the traffics operated between Jakarta and Australia have the capability of Navigation Specification of RNP2,

2.7 To enhance the capacity of city pairs, Indonesia plans to implement PBN RNP2 routes to Australia. The new PBN route will give the most benefits between city pairs Jakarta and Australia are as follows:

- a. Shorter route;
- b. There are plenty of areas to develop parallel PBN routes;
- c. Reducing fuel consumption to reduce operational cost for the fleet and also reducing Gas emission;
- d. The plan of the parallel RNP2 route improves CCO and CDO implementation during peak hours over Jakarta TMAs.

2.8 After PBN routes city pair between Jakarta-Singapore and Jakarta-Australia, the next development would be the alignment of these routes. It is expected that this alignment would provide a seamless PBN route between the northern and southern areas of Indonesia.

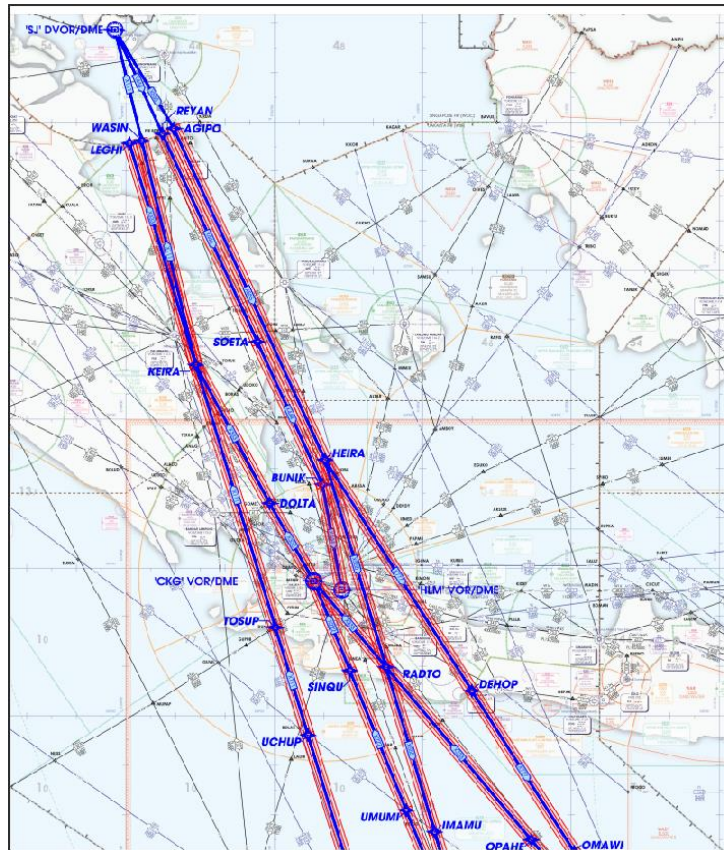


Figure 4: Proposal of next development

Challenges for Jakarta-Australia Routes

2.9 The challenge to improve this PBN Route in this area:

- a. There are existing routes (RNAV and non-RNAV) used between city pairs Jakarta and Australia.
- b. The separation that will be used between new PBN routes and the existing routes.

2.10 Accordingly, Indonesia looks forward to having the amendment of Doc 7030 to support the improvement plan.

3. ACTION 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.

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Summary of the paper to be included in the meeting report:

Indonesia has presented the plan for the implementation of international PBN routes. These routes connect to Singapore and Australia and expected to give shorter and more efficient international routes.