



ICAO

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First Meeting of the APAC Project 30/10 Task Force

Tangerang, Indonesia, 16 – 18 June 2026

Agenda Item 2: States Challenges and Implementation Plan

APPLICATION AND ENHANCEMENT OF SEPARATION MINIMA IN KUALA LUMPUR FLIGHT INFORMATION REGION (KL FIR) AND KOTA KINABALU FIR (KK FIR)

(Presented by Malaysia)

SUMMARY

This paper outlines the current application of separation minima within the Kuala Lumpur Flight Information Region (KL FIR) and Kota Kinabalu FIR (KK FIR) across different airspace categories and highlights ongoing initiatives on PBCS implementation, including reduced separation trials and the establishment of a Central Reporting Agency (CRA).

1. INTRODUCTION

1.1 Malaysia is dedicated to the ongoing advancement of air traffic management (ATM) in the Kuala Lumpur FIR (KL FIR) and Kota Kinabalu FIR (KK FIR), aiming to enhance operational efficiency and facilitate the safe and orderly development of air traffic within its airspace.

1.2 Ongoing efforts are focused on optimising the application of separation minima through the adoption of performance-based approaches and enhanced surveillance capabilities.

2. DISCUSSION

Current Separation Minima by Airspace Category

Terminal Area (Category T)

2.1 The minimum radar separation within the terminal area is established at 3 NM for operations associated with Kuala Lumpur International Airport (WMKK) within the KL FIR. In other Terminal Areas within the KL and KK FIR, a separation minimum of 5 NM is applied, reflecting differences in air traffic management complexity, as well as the capabilities of ATM and surveillance systems.

2.2 A reduction of the separation minimum in other terminal areas within KL and KK FIR from 5 NM to 3 NM is currently under review. Implementation of the revised separation standard will be subject to the outcome of the review, taking into consideration the traffic density, airspace complexity, availability of advanced ATM systems and demonstrated compliance with applicable safety requirements.

Surveillance Airspace (Category S)

2.3 Within Category S (surveillance) airspace, both the KL FIR and KK FIR apply a standard 5 NM horizontal separation minimum, consistent with the ATS surveillance capabilities.

2.4 However, at FIR Transfer of Control (TOC) points for inbound traffic, more conservative longitudinal separation minima are applied to ensure safe and orderly coordination between adjacent ATS units (ATSU). These minima typically range from 20 NM, 30 NM, and 50 NM or up to 10 minutes, depending on operational conditions, ATM systems & surveillance capability, and inter-ATSU coordination procedures requirements.

2.5 The increase in spacing is applied in accordance with established ATS coordination procedures or inter-ATSU agreements, and to accommodate transitions from surveillance to non-surveillance (procedural) airspace at FIR boundaries.

Remote Airspace (Category R)

2.6 A non-surveillance separation minimum of 50 NM is currently applied within the portion of the oceanic airspace within KL FIR. There is currently no designated Category R (remote) airspace within the KK FIR.

2.7 PBCS Implementation in KL FIR – Update:

- a) a trial involving the application of reduced separation minima of 30 NM is currently underway within KL FIR, with a view to permanent implementation within the current year, subject to a satisfactory safety assessment and the necessary regulatory approvals.
- b) the application of separation minima of 30 NM in oceanic and remote airspace requires the implementation of RCP 240 and RSP 180 specifications. In this regard, contractual arrangements with a CRA are required, as discussed and reaffirmed during the FIT-Asia/15 meeting.
- c) Malaysia is currently in the process of finalising the appointment of a CRA for the KL FIR. In parallel, Malaysia has subscribed to the Airways New Zealand PBCS monitoring tool to enhance performance monitoring capabilities and support ongoing implementation efforts.

Future improvement

2.8 Malaysia supports initiatives to further enhance air traffic management efficiency through the progressively reducing separation minima across applicable areas and ATS routes, particularly at the TOC. These efforts are aligned with regional harmonisation initiatives and the recommendations of the 14th ICAO Air Navigation Conference (AN-Conf/14), with the objective of improving airspace capacity, operational efficiency, and safety performance, subject to the outcomes of safety assessments and regional coordination.

3. ACTION BY THE MEETING

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

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