International Civil Aviation Organization

The Thirteenth Meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/13)

Beijing China, 16 – 18 July 2025

Agenda Item 2: Review of the Current and Planned CNS/ATM Capabilities and Identifying Associated Reduced Horizontal Separation

OPTIMISING CAPACITY ON ATS ROUTE L644

(Presented by Indonesia, Singapore, and Viet Nam)

SUMMARY

This paper presents an overview of the collective efforts of involved States to optimise capacity on ATS route L644.

1. INTRODUCTION

1.1 ATS route L644 is a RNP10 designated route that traverses the Ho Chi Minh, Jakarta, and Singapore Flight Information Regions (FIRs). The route was first established in 2005 with the objective of providing a more efficient flight planning option for aircraft operating between China, Hong Kong China, and Indonesia.

1.2 This paper presents an overview of the collective efforts of involved States – Indonesia, Viet Nam and Singapore, to optimise capacity on ATS route L644 through the removal of flight planning restrictions and the application of reduced separation minima.

2. DISCUSSION

Traffic Growth Following the Removal of Flight Planning Restrictions

2.1 ATS route L644 spans across Ho Chi Minh, Singapore and Jakarta FIRs, is a southbound uni-directional route which previously had a restriction for the route to only serve traffic operating between China, Hong Kong China, and Jakarta. In September 2022, following mutual agreement among the involved States, the flight planning restriction on ATS route L644 was removed to allow utilisation of this route regardless of the departure and arrival aerodromes. This initiative has significantly enhanced operational flexibility and allowed an overall increased in number of flights which utilised ATS route L644, particularly for flights departing from aerodromes in Viet Nam and arriving into Australia. The data collected between Q3 of 2019 and 2024 are as follows:

Departure Aerodrome Within	Q3 2019	Q3 2024
China	602	556
Hong Kong China	596	373
Viet Nam	7	704
Others	7	9

Total	**1,212**	**1,642**
Destination Aerodrome Within	**Q3 2019**	**Q3 2024**
Indonesia	1,210	1,407
Australia	2	235

Table 1: Traffic Statistics by Departure and Destination Aerodrome

2.2 The removal of flight planning restrictions shows an **increase of 35.5% in route utilisation**. In addition, flights with destinations in Australia also grew substantially – from 2 recorded flights for the period of June to August 2019 to 235 flights for the same period in 2024.

Reduction of Longitudinal Spacing

2.3 The longitudinal spacing applied across ATS route L644 was 10 minutes time-based separation. Improvements in Communication, Navigation, and Surveillance (CNS) capabilities and data sharing across the region have enabled the use of surveillance separation for ATS route L644.

2.4 Following the realignment of the boundary between Jakarta FIR and Singapore FIR on 21 March 2024, a longitudinal spacing of 20NM is now applied at the boundary waypoint, LIGVU.

2.5 To further optimise capacity along ATS route L644, Viet Nam and Singapore have agreed to apply 20NM longitudinal spacing at boundary waypoint, DUDIS. An operational trial had commenced on 1 July 2025, 0000UTC, with full implementation targeted for 1 November 2025, subject to safety and operational assessments. Besides increasing capacity, the reduction in longitudinal spacing will enable airlines to utilise more efficient trajectories.

Conclusion

2.6 The optimisation of ATS route L644 was made possible through the shared commitment of the States involved to promote efficient and seamless operations collaboratively and support the long-term growth of regional air traffic.

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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