International Civil Aviation Organization

Tenth Meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/10)

Video Teleconference, 31 May – 02 June 2021

Agenda Item3: Review of the Existing Traffic Flow Route Structures in SCS Airspace and Identifying Priorities

OPTIMIZATION OF AIR TRAFFIC OPERATIONS ON ATS ROUTE L644

(Presented by Indonesia)

SUMMARY

This paper presents the consideration and analysis conducted for the proposal to optimize flight routing and air traffic operation on L644.

1. INTRODUCTION

1.1 During the Nineth Meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/9) held in June 2021, Singapore presented a proposal to review the existing city pair restriction on ATS route L644 to allow operators to optimize flight routing, maximize route capacity and contribute towards reducing fuel burn.

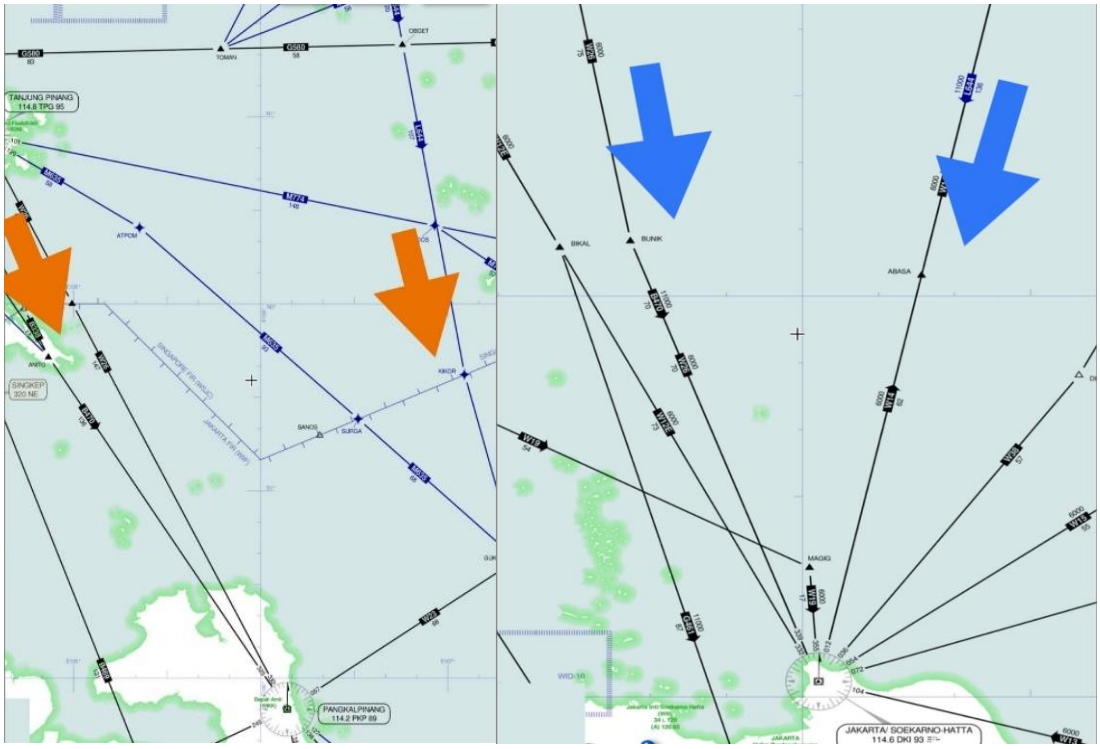
1.2 Global pandemic COVID-19 has been heavily affecting the global civil aviation. Indonesia is committed to enhancement of air traffic management to increase operational efficiency for airspace users and absolutely reduce greenhouse effect.

1.3 IATA presentation on ASEAN Airspace Workshop 19-21 Feb 2019 expressing their intention for ANSP to work together across borders to provide seamless, interoperable operations and service.

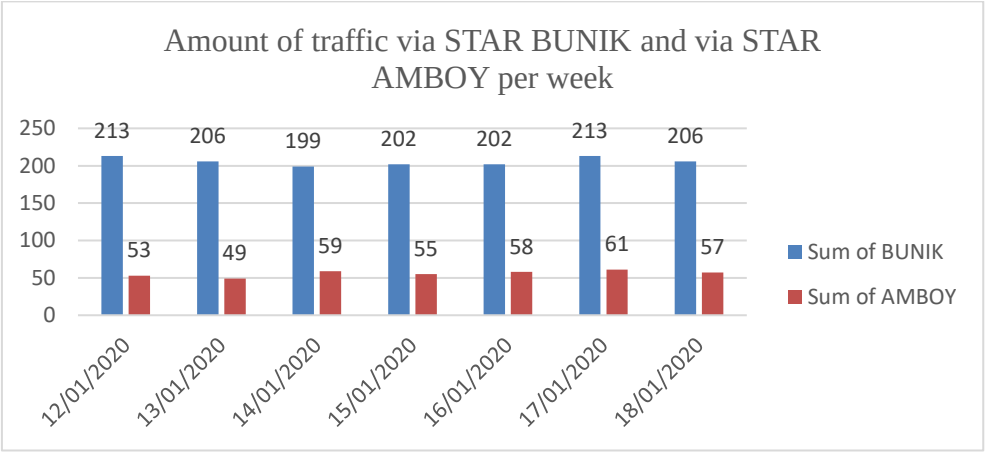
2. DISCUSSION

2.1 To the proposal as mentioned above, Indonesia has carried out further analysis to identify any operational benefits and/or issues, as follows:

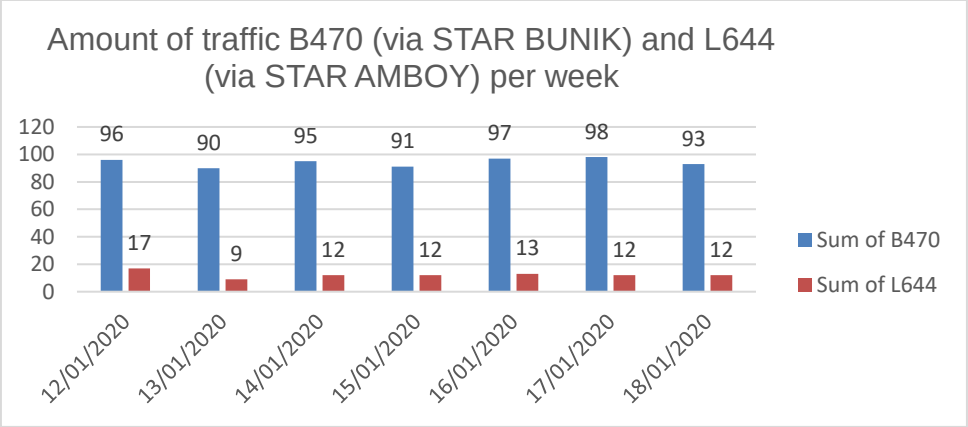
2.2 Currently, incoming traffic to Jakarta FIR via L642 will go through B470 at point ANITO, which is one of the busiest routes to connect Singapore and Jakarta or beyond (such as Australia, Bali, etc). Therefore, rerouting L642 into L644 will reduce complexity and traffic density of route B470 at point ANITO from Vietnam and beyond into L644 at point KIKOR.



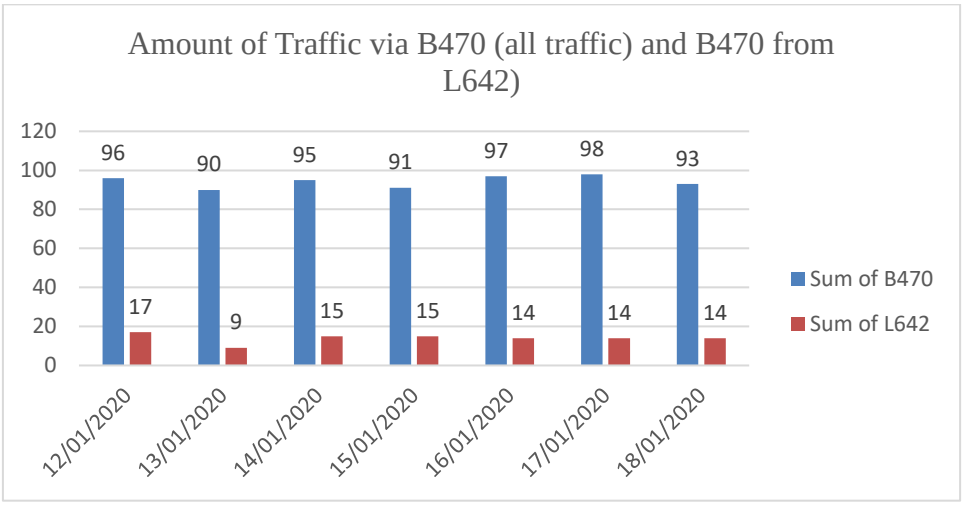
2.3 Rerouting flights from L642 into L644 for flights from Vietnam and beyond will share the traffic load for incoming traffic to Jakarta into 2 (two) different waypoints. Incoming from L642 via ANITO would join the STAR via BUNIK. Meanwhile, incoming from L644 via KIKOR would join the STAR via AMBOY. As a result, the traffic sharing will avoid the density of BUNIK. Finally, it will reduce potential holding at BUNIK for arriving traffic.



2.4 The traffic density of the STAR via BUNIK and STAR via AMBOY incoming to WIII (Jakarta) is approximately 37% in January 2020. Therefore, incoming traffic to Jakarta will be shared from BUNIK into AMBOY.

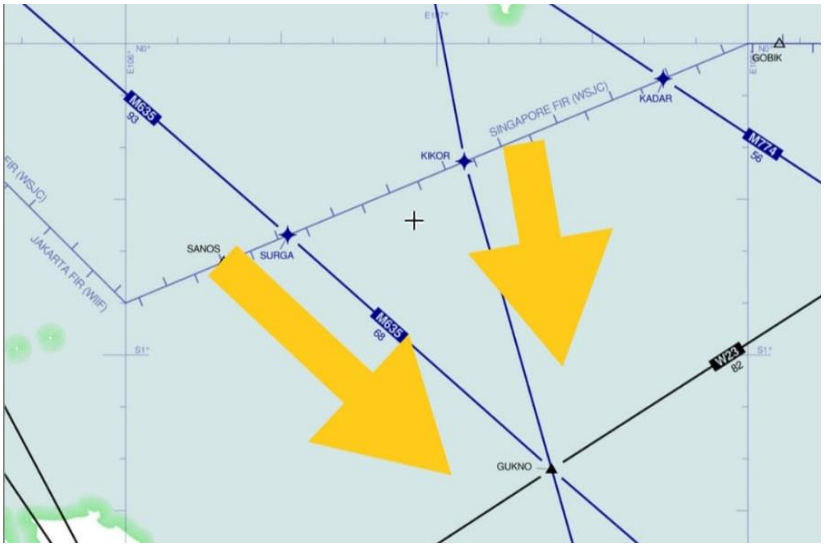


2.5 The table above showed density of incoming traffic from L642 via point ANITO to join B470 (then follow STAR via BUNIK) compared to incoming traffic from L644 via point KIKOR (then follow STAR via AMBOY).



2.6 The table above showed the whole traffic flying through B470 compared to amount of traffic from L642 via point ANITO to join B470.

2.7 If it is assumed that all traffic from L642 is re-routed to L644, then the density of B470 will be reduced by 6.7% and L644 will be optimized effectively.



2.8 L644 is published as RNP 10 route but 10- or 15-minute separation due to converging routes of L644 and M635 that cause potential hazard traffic at waypoint GUKNO. As one of the major ATS Routes that connects Singapore to Australia, Bali and beyond, economic level may not be available every single time in M635. Accordingly, Singapore ACC should enhance longitudinal separation in M635 while providing economic level before entering and crossing the common Jakarta's FIR boundary at point KIKOR and SURGA.

ROUTE	TCP
L644	KIKOR
M635	SURGA

2.9 Both L642 and L644 are covered by surveillance and VHF direct communication within Jakarta FIR. As a result, there is no reduction of service for L642 and L644 while entering Jakarta FIR.

3. CONCLUSION

3.1 Indonesia has no objection to Singapore proposal to rerouting flights from Viet Nam and beyond via L642 into L644 in this global pandemic period to support airspace users in operational efficiency and its sustainable environmental aspect. Meanwhile, the coordination and cooperation between ANSPs should be improved to provide safety and also seamless operation. As a result, it would contribute to the improvement of Air Traffic Services provision where L644 is optimised and the traffic density L642 (connected to B470) effectively distributed.

3.2 A comprehensive study should be arranged to finalize concept of operation the rerouting flights from L642 into L644 for flights from Vietnam and beyond in normal condition (not in pandemic condition).

4. ACTION BY THE MEETING

4.1. The meeting is invited to:

a) note the information contained in this paper;

b) discuss the concept of operation for rerouting flights from L642 into L644 for flights from Vietnam and beyond; and

c) discuss any relevant matters as appropriate.