International Civil Aviation Organization

Ninth Meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/9)

Video Teleconference, 01 – 03 June 2021

Agenda Item 3: Review of the Existing Traffic Flow Route Structures in SCS Airspace and Identifying Priorities

SCSTFRG PRIORITY AREAS

(Presented by the Secretariat)

SUMMARY

This paper presents SCSTFRG Priority Areas with the intention to seek States'/Administration's progress and commitment to set the implementation timelines for each Priority Area.

1. INTRODUCTION

1.1 Currently, the SCSTFRG has agreed to four Priority Areas. Priority Areas 1, 2 and 3 were agreed during the SCSTFRG/3 (Bangkok, Thailand, 25 – 27 February 2016) and Priority Area 4 was agreed during the SCSTFRG/7 (Manila, Philippines, 05 – 07 November 2019). Information about the SCSTFRG Priority Areas are as follows:

a) **Priority Area 1: A1/A202.** Action plan involving the reduction of longitudinal spacing to at least 20 NM and to develop a parallel route to A1.

b) **Priority Area 2: L642/M771.** Action plan involving the reduction of longitudinal spacing to at least 20 NM and to investigate the possibility of implementing parallel routes for L642 and M771.

c) **Priority Area 3: A461/A583/L625/N892.** Action plan involving the reduction of longitudinal spacing to at least 50 NM with planning for 30 NM or less.

d) **Priority Area 4: Review of existing Flight Level Allocation Scheme (FLAS)/ Flight Level Orientation Scheme (FLOS) operating within the South China Sea (SCS)**.

2. DISCUSSION

Priority Area 1: A1/A202

Enhancement of Longitudinal Spacing to at Least 20NM

2.1 20 NM longitudinal spacing has been implemented on ATS route A1 (at the Transfer of Control (TOC) points between Ho Chi Minh and Sanya FIRs; Sanya and Hong Kong FIRs; and Hong Kong and Taibei FIRs) and ATS route A202 (at the TOC points between Ha Noi and Sanya FIRs; Sanya and Guangzhou FIRs; and Sanya and Hong Kong FIRs), effective from 26 March 2020.

2.2 This action item is completed.

Parallel Route to ATS Route A1

2.3 The Eighth Meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/8, Bangkok, Thailand, 03 – 05 September 2019) had agreed for ATS route A1 and the proposed parallel route to be designated as RNAV 2, which would involve modification on the existing ATS route A1 route alignment, subject to the concerned States agreement of the displacement of the entry and exit points at the FIR boundary.

2.4 **Figure 1** illustrates the position of the proposed parallel route to ATS route A1, and the traffic flow orientation preferred by Hong Kong China, Lao PDR and Thailand (at SCSTFRG/5 meeting, China commented that they could accept the parallel uni-directional route in any direction).

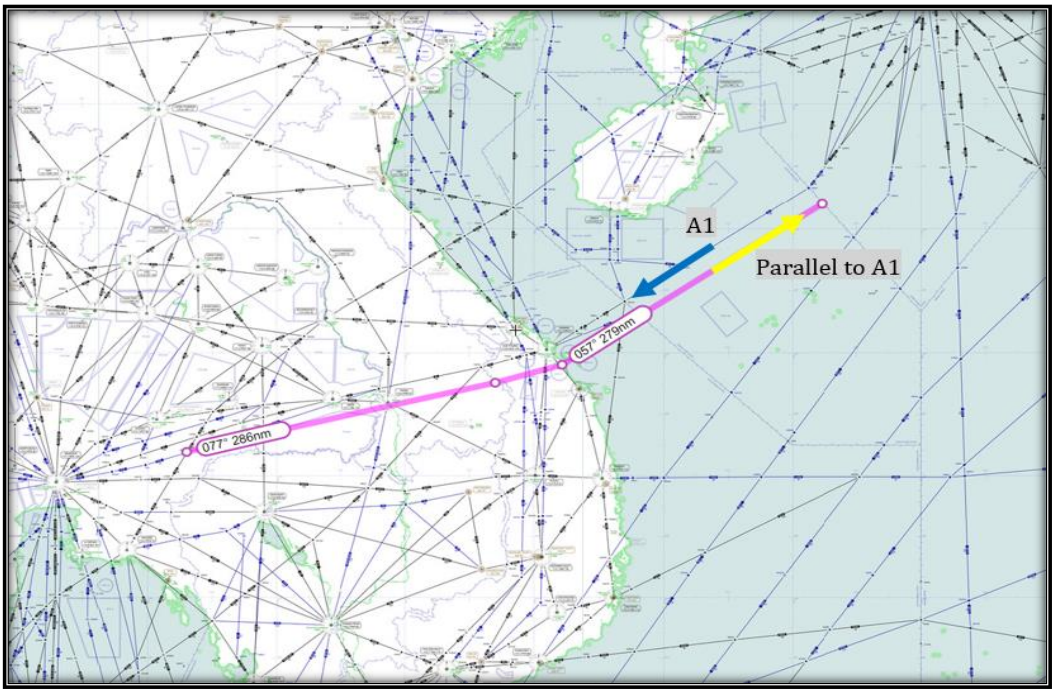

Figure 1: Uni-directional Parallel Route to ATS Route A1

2.5 SCSTFRG/8 was informed of Viet Nam's preference that was on the reverse orientation, which could be more suitable for Da Nang International Airport operations.

2.6 This matter was also discussed at the Eighth Mekong Air Traffic Management Coordination Group Meeting (MK-ATM/CG/8, Da Lat, Viet Nam, 11 – 13 December 2019). Viet Nam commented that the proposed traffic flow orientation (**Figure 1**) would increase flight distance, time and crossing points between arriving and departing traffic from Da Nang International Airport to the Southeast Asia/beyond and vice versa. According to Viet Nam, implementing the route as in **Figure 1** would increase Air Traffic Control (ATC) workload, and therefore requested the States concerned to re-consider the traffic flow orientation.

2.7 At the MK-ATM/CG/8, Thailand had suggested that to minimise the impact on the existing Standard Instrument Departure (SID) and Standard Instrument Arrival (STAR) procedures for Da Nang International Airport, Viet Nam could consider implementing the route segment between Da Nang VOR and BUNTA as bi-directional. A transition route would need to be implemented to support this proposal.

2.8 ICAO conducted preliminary assessment on Da Nang International Airport SID and STAR procedures for Runway 35, in early January 2020. According to the assessment, minimal changes are required to support the implementation of these parallel uni-directional routes (**Figure 2**). This assessment was shared through emails; however, no reply was received from Viet Nam.

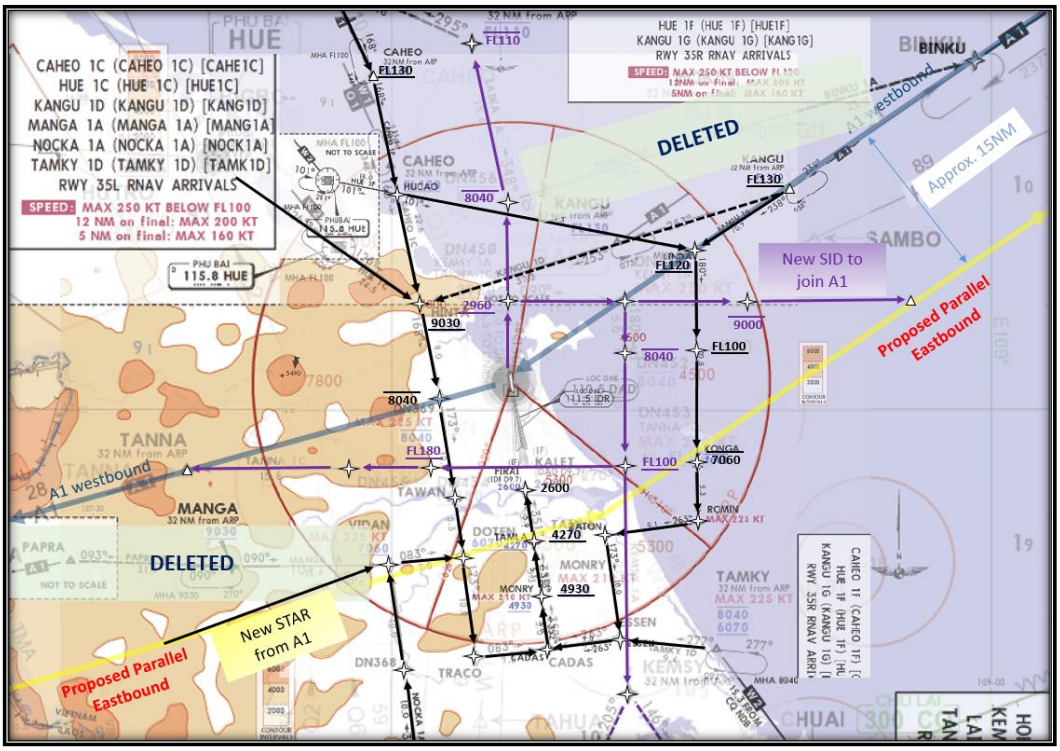

Figure 2: Preliminary Assessment

2.9 Viet Nam is invited to provide update on the proposed parallel uni-directional routes and feedback on the assessment provided in **Figure 2**.

2.10 SCSTFRG is invited to discuss the necessity to conduct modelling and simulation to facilitate the determination of most suitable traffic flow orientation for these parallel uni-directional routes.

Priority Area 2: L642/M771

Enhancement of Longitudinal Spacing to at Least 20NM

2.11 Based on the information provided by Hong Kong China during the Eighth Meeting of the ATM Sub-Group of APANPIRG (ATM/SG/8, Video Teleconference, 23 – 27 November 2020), the implementation of 20 NM longitudinal spacing at the TOC points between Hong Kong and Sanya FIRs, on ATS routes L642 and M771 was expected to be implemented in the second quarter of 2021.

2.12 China and Hong Kong China are invited to provide update on the implementation date.

2.13 China and Viet Nam are requested to confirm 20 NM longitudinal spacing will also be implemented at the TOC points between Ho Chi Minh and Sanya FIRs.

Parallel Route to ATS Routes L642 and M771

2.14 SCSTFRG/8 was informed that according to Hong Kong China's assessment, by enhancing the longitudinal spacing from 50 NM to 30 NM (or possible 20 NM) on the existing ATS route L642 and M771 would be sufficient to cater for current and future traffic demand.

2.15 Hong Kong China further commented that they had no plan or intention to implement these parallel routes for the time being, and would only consider, if the traffic demand necessitates in the future.

Priority Area 3: A461/A583/L625/N892

2.16 SCSTFRG/8 was informed that 50 NM longitudinal spacing had been implemented at the TOC points between Hong Kong and Manila FIRs, on ATS route A461 and A583, effective from 23 May 2019 and 15 August 2019 respectively.

2.17 At the Combined Tenth Meeting of the South Asia/India Ocean ATM Coordination Group and the Twenty-Seventh Meeting of the South-East Asia ATS Coordination Group (SAIOACG/10 and SEACG/27, Video Teleconference, 29 March – 02 April 2021), Hong Kong China and Philippines provided information on the planned implementation of 30 NM longitudinal spacing on ATS routes A461 and A583. The implementation of 30 NM longitudinal spacing was planned in phases approach, starting with A461, planned in fourth quarter of 2021, between pair(s) of RNP 4 compliant aircraft, with one or both of them landing within the Hong Kong or Manila FIR.

2.18 SCSTFRG/8 was informed that Philippines had planned to implement 50 NM longitudinal spacing on ATS routes L625 and N892 after Manila ACC Sector 9 (West Sector) was operational, expected by first quarter of 2020. Philippines is invited to provide update.

Priority Area 4: Review of existing FLAS/FLOS operating within the South China Sea

2.19 SCSTFRG/7 had agreed that the discussion on Priority Area 4 would take place after the completion of Priority Areas 1, 2 and 3.

2.20 Since most of the action plans under Priority Areas 1, 2 and 3 are almost complete, States/Administration should be prepared to discuss Priority Area 4 during the next meeting (SCSTFRG/10). As proposed by IFATCA at the SCSTFRG/7, the review of existing FLAS and FLOS operating within the SCS could be conducted in three phases:

- *Phase 1: Revision of FLAS on selected ATS routes*

  Re-allocation of two of the six flight levels on the primary routes M767, L625, N884 and N892 (one eastbound and one westbound flight levels) to the secondary crossing routes A461, A583, M758 and M761. The remaining four flight levels on the primary routes would provide adequate capacity under normal circumstances to satisfy the traffic demand. The additional capacity that one flight level in each direction on the secondary crossing routes would relieve some of the delays and restrictions that are currently imposed on traffic.

- *Phase 2: Revision of FLOS on selected ATS routes*

  Revision of the FLOS on the primary routes L625/N892 and M767/N884, from the SCS modified single alternate FLOS to the standard FLOS (Annex 2, Appendix 3a) would serve the purpose of removing the need to transition flights at the Manila FIR boundary and thereby resolve the Large Height Deviation (LHD) safety issues.

- *Phase 3: Normalised SCS modified single alternate FLOS to standard FLOS (Annex 2, Appendix 3a) on all ATS routes*

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

a) note the information contained in this paper;

b) provide feedback and status update for the relevant Priority Areas;

c) discuss the necessity to conduct modelling and simulation to facilitate the determination of most suitable traffic flow orientation for the proposed A1 parallel uni-directional routes.

d) discuss and provide the implementation timeline for relevant Priority Areas; and

e) discuss any relevant matters as appropriate.

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