



International Civil Aviation Organization
The Second Meeting of South China Sea Major Traffic Flow Review Group
(SCS-MTFRG/2)

Haikou, China, 22-24 July 2015

Agenda Item 3: *Review of the existing MTF route structures in SCS Airspace and identifying priorities*

REVIEW OF SOUTH CHINA SEA FLOWS

(Presented by IATA)

SUMMARY

Considering the significant investment in ATM capability by states in the South China Sea area this paper presents a high level view of short and long term enhancements to capacity and efficiency to ensure the investments made deliver appropriate enhancements to services

1. INTRODUCTION

1.1 The South China Sea (SCS) is recognized as the “Main Trunk” for South East Asia with increasing traffic on all routes. The major routes M771 and L642 have been the focus of a number of recent improvement initiatives with further enhancements expected as states enable capability.

1.2 Gaps in Surveillance and communications coverage in this key area for the region is frustrating for users and ANSPs alike as it requires non optimized/non harmonized procedures and traffic handling methods. Enhancements of the other SCS routes is limited by this lack of infrastructure availability.

1.3 Current ATM upgrade investment in the states managing the SCS airspace are in the order of USD2 billion. This should deliver a significant improvement in capability which must be reflected in a commensurate improvement in harmonized and efficient delivery of services.

1.4 Not only will optimized procedures and utilization of ATM capability enable efficiencies, implementing optimized separations (as opposed to spacing) will provide ATCOs with a greater degree of flexibility when dealing with unusual situations such as enroute weather.

1.5 In alignment with the APAC Seamless ATM Plan it is timely to strategically plan for further enhancements to services in the South China Sea to take advantage of the ATM projects currently underway.

2. DISCUSSION

Short Term: 2015 -2017

- M767 and N884 have recently had procedural 50nm longitudinal separations implemented. The Philippines is currently restarting their ADS-C/CPDLC program and this should allow further improvement in separations on these routes (eg RNP4 30:30)
 - IATA request a timeline from the Philippines regarding availability of ADS-C/CPDLC (or ADS-B) in the Eastern South China Sea.
 - IATA request planning for RNP4 30:30 be commenced between the states involved assuming the Philippines ADS-C/CPDLC program is in place and/or ADS-B

- M771 and L642 Separations are planned to be reduced to 20nm longitudinal by Vietnam and Singapore, utilizing surveillance capability. These routes have surveillance and communications available for their full length and therefore surveillance based separations are available:
 - IATA requests Sanya FIR to also reduce longitudinal separation on these routes to 20nm in coordination with Vietnam and Singapore.
 - IATA requests Hong Kong reduce longitudinal separation on M771 and L642 to 20nm when their new ATM system is operational in 2017 (+6 months, no change)
- Further IATA requests reconsideration of the alignment of M771 and L642 as follows:
 - L642 realigned from VEPAM to CH
 - M771 realigned from DAMEL to CH

It is understood that Hong Kong China has reviewed these requests and found the requested changes would create increased conflict points with other routes and require changes to sector traffic management procedures. It is hoped that the implementation of the new ATM system in Hong Kong will provide an opportunity to revisit the request and positively respond, given the significant benefits in both Fuel and CO2 savings that will be achieved.

- To encourage standardized procedures and separations declare South China Sea airspace RNP4 as an interim step before RNP2 classification
- Accelerate and expand data sharing (Communications and surveillance) between States managing SCS airspace
- . Serious consideration should be given to temporary delegation of airspace to adjacent providers who can provide surveillance and VHF coverage (and efficiencies) in areas of high seas airspace, currently not covered by the responsible state.

2.2 Longer Term: 2017 and beyond

- Declare South China Sea airspace RNP2 (this will encourage standardized procedures and separations)
- Re-designate routes RNP2
- Implement additional parallel unidirectional routes for M771 and L642
- Crossing Routes currently have FLAS to ensure altitude separation from main routes. Implement parallel unidirectional crossing routes to allow more access to optimal Flight levels on Main Trunk routes.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) Develop, agree and commit to a plan that will deliver capacity and efficiency enhancements in the South China Sea based on RNP/RNAV2 with a view to utilizing the improved capability from the current large investments in ATM capability improvements in the area