



*International Civil Aviation Organization*

**The Twenty-Second Meeting of the Southeast Asia ATM Coordination Group  
(SEACG/22)**

Bangkok, Thailand, 09-12 March 2015

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**Agenda Item 3: Review of Current Operations and Problem Areas**

**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 Holes 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. In addition, enhancement of the other SCS routes is limited by this lack of infrastructure availability.

1.3 The current ATM upgrade investments for States managing the SCS airspace are in the order of USD1.5- 2 billion. This investment 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 accordance 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 modernization projects recently completed or currently underway.

## 2. DISCUSSION

### South China Sea Major Traffic Flow Review Group (SCS-MTFRG)

2.1 This group was convened by SEACG/21 with the following objectives:

- a) to review the MTF conflicts with ATS routes A461 and A583;
- b) to analyse the MTF in the overall South China Sea airspace, air routes and the suitability of the FLOS to optimize airspace capacity and enhance flight safety in the long term; and
- c) to report outcomes of the review and **recommendations** to the ATM/SG/2 or SEACG/22 meetings At SCS MTFRG/1

2.2 IATA proposed that *“management of the South China Sea (the Main Trunk of South East Asia) must be a collaboration between states to ensure harmonization and consistent application of common procedures and processes”*

2.3 With reference to Objective(b) the SCS MTFRG/1 meeting decided that the scope of the group would be limited to reviewing current processes and capability rather than any future planning to *“optimize airspace capacity in the longer term”* subject to review by SEACG 22. This does not appear to be consistent with the objective of the original Decision, namely, that the group should make recommendations ‘to optimize airspace capacity and enhance flight safety’.

2.4 Therefore there remains a need to establish a different collaborative planning mechanism between stakeholders and States responsible for managing the SCS airspace to implement the APAC Seamless ATM Plan objectives or clarify the working arrangements and objectives of the South China Sea MTF Review Group.

2.5 It is suggested that requirement for this planning to commence is now urgent, taking into account lead times required to ensure the appropriate procedure development, route design, interstate agreements, Regulatory approvals etc. are in place for implementation.

2.6 IATA proposes the following plan for consideration:

#### **Short Term: 2015 -2018**

- In the shorter term capacity enhancement measures must be initiated or continued. 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;
- To encourage standardized procedures and separations declare South China Sea airspace RNP4, as an interim step toward RNP2 classification;
- Accelerate and expand data sharing (Communications and surveillance) between States managing SCS airspace;

- 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 surveillance based separations are available, therefore:
  - IATA requests Sanya FIR to also reduce longitudinal spacing on these routes to 20NM in coordination with Vietnam and Singapore.
  - IATA requests Hong Kong reduce longitudinal spacing on M771 and L642 to 20NM when their new ATM system is operational in 2016/17
- 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.*

- 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 (e.g. 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 in the short term

#### **Longer Term: 2018 and Beyond**

- Declare South China Sea airspace RNP2 (encouraging harmonized procedures and separations);
- Re-designate routes RNP2;
- Implement additional parallel unidirectional routes for M771 and L642 and any other routes where capacity is insufficient to meet projected demand;
- 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;
- Removal of FLAS/FLOS in airspace that has surveillance coverage

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) Clarify the working arrangements and objectives of the South China Sea Major Traffic Flow Review Group and/or
- c) Develop, and commit to a plan that will deliver capacity and efficiency enhancements in the South China Sea based on the Asia/Pacific Seamless ATM Plan with a view to utilizing the improved capability from the current large investments in ATM capability improvements in the area.

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