



*International Civil Aviation Organization*

**Third Meeting of the Southeast Asia Route Review Task Force  
(SEA-RR/TF/3)**

Bangkok, Thailand, 24 – 27 August 2010

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**Agenda Item 2: Review Outcomes of Related Meetings**

**SUMMARY OF WORK PROGRESS DURING SEA-RR/TF/1 and 2**

(Presented by the Secretariat)

**SUMMARY**

The purpose of this working paper is to give a summary of progress which has occurred during previous meetings of the SEA-RR/TF

**1. INTRODUCTION**

1.1 The meeting would note that this is the third meeting of the SEA-RR Task Force. The first meeting was held on 8 – 11 December 2009 and the 2<sup>nd</sup> meeting on 22-26 March 2010.

1.2 The Objective of the Task Force and the Terms of reference are attached for information.

**2. DISCUSSION**

**Summary of major items discussed at previous Task Force Meetings**

*Enhancement to operations on other SCS ATS routes*

2.1 The meeting is reminded that in earlier discussions, it was mentioned that the work of the task force could be achieved in two ways. One option could be to conduct a review of the existing routes and identify those that could be enhanced to improve efficiency. The second option would be to complete a full review of the routes in this sub- region. Noting that positive work had already established new procedures on L642 and M771, the Task Force was encouraged to spread this initiative to other South China Sea routes to the east.

2.2 The Philippines advised that they will soon be in a position to apply CPDLC procedures to aircraft within the Manila FIR, which will enhance procedures and reduce longitudinal spacing between suitably equipped aircraft operating on these routes.

*Restrictions applied within the Taipei FIR*

2.3 The meeting was advised that periodic flow restrictions were being applied within the Taipei FIR due to monthly maintenance on their radar facilities, especially with regard to aircraft operating on A1/G86. The meeting noted that the Taipei ACC was aware of this impediment and have advanced the commencement of their maintenance period to an earlier time so as to minimize the impact on other ACCs and aircraft planning to fly through this airspace.

*The Principle of Unidirectional Routing in the Southeast Asia Area*

2.4 The change in the use of unidirectional routing in the Southeast Asia Area was extensively discussed. It was noted that, with respect to RNAV routes L642 and M771, this methodology has already been put in place. One of the primary aims of the task force is to complete the work of RNP 10 Separation, both lateral and longitudinal on other SCS routes to the east of these mentioned two routes. It would therefore seem, from a standardization point of view, to treat these routes in a similar fashion.

2.5 It was finally agreed that, where possible and feasible to do so, from a safety and operational justification point of view, unidirectional routing should be considered when devising any new route pattern or structure in the area under consideration.

*Unidirectional Crossing Routes*

2.6 The meeting recalled that the primary traffic flow which connects major airports in the northeast/southwest portions of the SCS and beyond are crossed by several ATS routes which are presently bidirectional and are mostly of a shorter distance than the major traffic flows.

2.7 The meeting looked at the establishment of pairs of unidirectional routes to replace each of the present bidirectional crossing routes. Each pair of routes would diverge within radar coverage to a lateral spacing of 60NM prior to crossing the primary traffic flow, then once separated with the primary flow, converge back to a single route at a point to be defined, also under radar coverage.

2.8 The following crossing routes could be designed in this fashion:

- a) M768 Brunei to TSN
- b) L628 Manila to PCA
- c) A461 Manila to Hong Kong
- d) B462/ B348 Manila to Taipei

2.9 The routes described above are considered as the most used routes crossing the major traffic flow in the South China Sea area.

2.10 The Philippines advised that they support the establishment of a unidirectional crossing route structure which will allow airspace users more access to optimum flight levels and giving ATC more flexibility in selecting alternative flight levels as well as environmental considerations through reduced carbon emissions.

2.11 A principle reason for the unidirectional crossing routes was to allow the major traffic flows, which have comparatively more traffic, to gain the benefits of additional flight level (one or two) to cope for the expected growth on these primary routes. It was agreed that further discussions on this initiative would be continued at the next meeting of the Task Force.

*Statistical Aircraft Data Collection and Analysis*

2.12 The meeting agreed that a thorough analysis of aircraft data was required to ensure that proposals for an appropriate route review is based on updated data in regards to present and forecast traffic operating in the area under consideration.

2.13 Notwithstanding that a Traffic Data Sample (TDS) for RVSM monitoring is presently agreed to, a more expansive data collection covering many aspects should also be undertaken when a major route review is contemplated in an area like South East Asia. For example, there are certain factors which needs to be assessed across a broader timeframe such as:

- a) Seasonal figures;
- b) Identifying busy periods, both on the major routes and crossing routes; and,
- c) The number of FANS equipped aircraft operating in the area.

*Establishment of a Data Statistics and Analysis Working Group*

2.14 It was agreed to establish a Data Statistics and Analysis Working Group. Each State would provide a contact point and to coordinate the data collection process, In addition, States were also invited to participate in the working group. It was further agreed that Thailand and Singapore would carry out the task of collation and analysis of the data.

*Realignment of L642 and M771*

2.15 The meeting was also asked to consider the realignment of segments of the present two RNAV RNP 10-50 NM separation routes L642 and M771 between Ho Chi Minh FIR and Hong Kong FIR to the west of their present position so that both routes could be considered as RNAV 5 routes under full radar and VHF coverage. I was accepted that ATS route A1 should be taken into consideration during this change.

*Establish Small Working Groups*

2.16 Where a particular subject can be separated from most other items, a small working group consisting of States concerned, along with international organizations where required, could discuss the work required in detail and when completed to satisfaction, submit the consensus to the plenary meeting for final analysis agreement.

2.17 There was general agreement to this proven methodology as an effective way in moving forward on many of the issues which need to be addressed in the overall project.

2.18 It was also considered that there were several other questions on other route proposals outside the main area of the major traffic flow and crossing routes, which could be addressed in this SWG manner. It therefore was agreed that the concept of SWGs could be an effective tool in bring particular States and organizations together to find suitable answers and solutions on these subjects.

2.19 It was finally decided to formulate 3 Small Working groups with specific tasks :

- a) SWG/1 - *Data Collection and Analysis*: This SWG has already commenced their work
- b) SWG/2 - Improvements to the Major Traffic Flow as well as proposed modifications to other routes outside the Major Traffic Flow.
- c) SWG/3 – Establish of unidirectional RNAV routes crossing the Major Traffic Flow.

2.20 Finally, a work programme was suggested which covered the following areas:

- a) Introduction of RNP 10 horizontal separation where applicable;
- b) Unidirectional RNAV routes on tracks crossing the major traffic flow SW/NE;
- c) Unidirectional routes between Bangkok and Hong Kong including matters which need to be addressed in the strategic plan for this proposal to successfully proceed;
- d) Data collection and analysis on most project items to ensure that qualified data indicates a reason to proceed;
- e) Necessary safety related issues which are required to be addressed before implementation; and,
- f) Realistic target dates to complete all projects within the overall framework of the SEA-RR/Task Force.

### 3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the discussions, arrangements and agreements from Task Force 1 and 2, mentioned in this working paper;
- b) use the background of this working paper as a basis to move forward on work to be undertaken; and,
- c) work in small groups on particular items to accelerate the decision making process.

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## **Terms of Reference**

### **Southeast Asia Route Review Task Force** **(RR/TF)**

- 1) The objective of the ICAO RR/TF is:

In collaboration with affected stakeholders and ensuring inter-regional harmonization, develop and implement strategic, benefits-driven plans to improve en-route airspace efficiency.

- 2) To meet this objective the Task Force shall:

- a) Review the existing route structures in the WPAC/SCS area south of the Fukuoka FIR, taking into consideration the AR9 traffic flow.
  - b) Determine the reduced horizontal separation required, taking into account the aircraft approval status of the traffic operating on the relevant route.
  - c) Examine the possibility of a step-by-step or phased implementation of new route structure and detail the phases required and the areas/routes concerned.
  - d) Develop and action the necessary strategic plans with appropriate timelines to implement the new route structure based on the APANPIRG Regional PBN Implementation Plan and ICAO Standards and Recommended Practices, whilst taking into account the need for inter-regional harmonization, State and user requirements.
  - e) Ensure the conduct of Annex 11 compliant pre-implementation safety assessments and make arrangements for States to conduct ongoing post-implementation safety monitoring in accordance with ICAO provisions.
  - f) Consider setting up appropriate teams/groups which might but not necessarily, include the entire Task Force, to address and implement specific agreed measures within specific airspaces.
  - g) Cooperate with other Task Forces and groups which are involved with similar work in adjacent airspaces in order to achieve harmonized inter-regional solutions.
  - h) Explore possibilities for further enhancements to operational efficiency of route structures through reconfiguration and/or enhanced surveillance.
- 3) Membership of the RR/TF should include, but not be limited to: Cambodia, China (for Sanya FIR), Hong Kong China, Indonesia, Lao PDR, Malaysia, Philippines, Singapore, Thailand, Vietnam and IATA.
- 4) The RR/TF reports to the ATM/AIS/SAR Sub Group of APANPIRG

*(last amended ATM/AIS/SAR/SG/19, 26 June 2009)*