



*International Civil Aviation Organization*

**Fourth Meeting of the Southeast Asia Route Review Task Force  
(SEA-RR/TF/4)**

Bangkok, Thailand, 22 – 26 November 2010

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**Agenda Item 6:   ATS Route Development**

**CHANGING ATS ROUTES TO RNAV ROUTE DESIGNATORS**

(Presented by the Secretariat)

**SUMMARY**

The purpose of this working paper is to continue the work accomplished at SEA-RR/TF/3 meeting in changing some ATS routes to RNAV classification within the area under consideration so as to enhance efficiencies and traffic handling.

**1.    INTRODUCTION**

1.1           At the 3<sup>rd</sup> Meeting of the SEA-RR/TF, it was decided to establish a Small Working Group (SWG/2), which would concentrate on looking at the route structure under consideration, and identify where ATS routes could change to RNAV routes, to increase efficiencies for aircraft operators.

1.2           It should also be noted that SWG/2 detailed a list of ATS routes which could be changed to RNAV route classification, which are detailed in an Attachment to this working paper.

**2.    DISCUSSION**

2.1           The process of changing an ATS route to an RNAV route designator across FIR boundaries is a relatively easy process by agreement by the States concerned. Nevertheless, the change may involve some affected airline operators to go through an RNAV approval process by their State Regulator. This approvals process includes items such as airworthiness/operational approval, pilot training etc. As basic RNAV capability has been with us for some time, it may be that many of the aircraft operating through the South China Sea are already capable and have been approved for RNAV RNP 10 operations.

2.2           There may also be cases where some ATS routes with regional designators are only used for domestic operations. There may also be cases where ATS routes with domestic designators are also used for regional operations. It is suggested that, with respect to Southeast Asia ATS routes, an examination should be undertaken on these matters and appropriate action taken to remedy any deficiency.

2.3           The meeting is invited to take into account the suggested ATS routes mentioned in the Attachment and provide a projected timetable for an implementation plan, including proposed RNAV routes which continue outside the area under discussion.

3. **ACTION BY THE MEETING**

- 3.1 The meeting is invited to request the SWG/2 to:
- a) Use the Attachment as a basis for an implementation plan for the changeover from ATS routes to RNAV routes;
  - b) Establish a mechanism of implementation for present ATS routes to RNAV routes which continue outside the area under consideration by the task force;
  - c) Investigate cases where ATS routes with regional designators are only used for domestic operations; and,
  - d) Investigate cases where ATS routes with domestic designators are also used for regional operations.

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**Report on Small Working Group (SWG/2)**  
**To discuss possible changes from ATS routes to RNAV routes**

At the request of SEA-RR/TF/3, Mr. John Wagstaff, IFATCA Representative, agreed to act as the moderator for the SWG/2.

1. The Small Working Group/2 (SWG/2) consisted of representatives from 10 States and two international organisations.
2. The SWG reviewed WP/5, Changing ATS Routes to RNAV, and noted that whilst the majority of newly established routes have been classified as RNAV routes, the requirements for RNAV classification should now also be applied to many of the long established ATS routes. IATA advised the SWG of the benefits that RNAV routes can bring to operators. The SWG was also advised that the current equipage of airline fleets could easily meet the basic navigation specifications of RNP 10, RNP 4 and RNAV 5. This however was only for the navigation specifications and did not represent any communications or surveillance requirements that may be associated, such as for RNP 4 30/30 separations. As previously mentioned, these are separate requirements and may be more difficult to achieve
3. It was emphasised that any changes from ATS to RNAV would need to be coordinated on a regional basis as some of the ATS routes passed beyond the area under consideration by the meeting,
4. The meeting then considered which ATS routes in their airspace could be classified as RNAV routes. Each State provided details of ATS routes that were either being actively reclassified or considered as RNAV routes. It was noted that some States had already implemented a High/Low airspace division which provided RNAV classification for the high levels whilst retaining the ATS route designator for the lower levels.
5. The SWG was very productive due to the cooperation of all participants in discussions on this subject. The information provided showed that the States are aware of the benefits of RNAV nomenclature and are actively working to upgrade their procedures to provide a more efficient service to airline operators.
6. IATA commented on the positive approach of all representatives at both the SWG and the Task Force itself. They were gratified with the significant amount of action occurring within each State, including the initiative in the redesignation of traditional routes into RNAV routes and the implementation of new RNAV routes.
7. IATA further advised the SWG/2 that the traffic data analysis provided a good starting point to allocate priorities based on those non RNAV routes with greater traffic needs. However the benefits were not just in the primary flows but could be realised on all routes. By States continuing to develop their own programs as well as considering proposals from others, the platform was in place to deliver long term efficiencies region wide. The challenge is to not exclude any proposal but rather consider how each proposal can be delivered.
8. The following Chart shows the present and intended progress by States on changing their ATS to RNAV routes in coordination with their neighbours.

SEA-RR/TF/3  
 Appendix F to the Report

Cambodia	G474, R468 B329, R588, R575	RNAV procedures already in use Planned RNAV classification
China	A1, A202	Radar surveillance, 40 NM spacing in use
Hong Kong, China	A461, A583 A1, A202	RNAV classification being coordinated with Philippines Radar Surveillance, 40NM spacing in use
Indonesia	A461, R340, B472, B473	Working on change for RNAV classification. Indonesia will work with Philippines and Australia on RNAV classification.
Laos	B218, R474, B329	Plans for reclassification
Malaysia	B348	Singapore, Malaysia and Philippines agree to the upgrading of B348 to RNAV route until Manila – Taipei FIR boundary. Philippines will coordinate with Taipei FIR accordingly.
Philippines	A461, A583 B348 A590	Discussions with Hong Kong Coordination with Malaysia and Taiwan Coordination with Japan (already RNAV procedures in Japan)
Singapore	B348,	Coordination with Malaysia
Thailand	A464, G458	Domestic routes – plan in place
Vietnam	R471	Plan in place - Many RNAV routes implemented

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