



International Civil Aviation Organization

ICAO

The First Meeting of the South Asia, Indian Ocean and  
Southeast Asia ATM Coordination Group (SAIOSEACG/1)

Video Teleconference, 28 March – 01 April 2022

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## Agenda Item 6: ATS Route Development

### IMPLEMENTATION OF RNP 4 ON ATS ROUTES M767 AND N884

(Presented by the Philippines and Singapore)

#### SUMMARY

This paper presents an update on the implementation of RNP 4 navigation specification for ATS routes M767 and N884. The Philippines and Singapore had begun operational trial on both ATS routes for aircraft operating between Manila and Singapore FIRs since January 2022, and plan to implement RNP 4 operations in April 2022.

## 1. INTRODUCTION

1.1 The ICAO Asia/Pacific Seamless Air Navigation Services (ANS) Plan (Version 3.0) urged States to implement Performance Based Navigation (PBN) specifications for all new ATS routes. Specifically, for remote airspace<sup>1</sup>, ICAO stressed that in order to support the implementation of the sixteen priorities identified by region within the plan, ATS routes should be either be RNP 2 or RNP 4.

1.2 Heeding ICAO's call, the Philippines and Singapore had planned to implement RNP 4 navigation specifications for ATS routes M767 and N884. This would allow for the tightening of horizontal and lateral separation on both routes, potentially increasing route capacity by up to 60%.

1.3 The plan for RNP 4 implementation was first raised at the Eighth Meeting of the South China Sea Traffic Flow Review Group (SCSTFRG/8). This paper informs the meeting of the progress of the implementation.

## 2. DISCUSSION

2.1 The Philippines and Singapore collaborated to develop and plan for the implementation of RNP 4 on ATS routes M767 and N884. This included a three-month operational trial (from 27 January to 20 April 2022) to allow controllers in Manila Area Control Centre (ACC), Singapore ACC and airspace users to gain operational experience and confidence in the application of appropriate separation minima as ATS routes M767 and N884 allow for aircraft to operate with RNP 4 or RNP 10 navigational specifications. The planned implementation date for RNP 4 operations had thereafter been scheduled on 21 April 2022 upon completion of the trial.

2.2 The planned key milestones towards the implementation of RNP 4 on ATS routes M767 and N884 is summarized below in **Table 1**.

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<sup>1</sup> Category R (remote airspace) is defined by the ICAO APAC Seamless ANS Plan as a “remote en-route airspace with ATS HF or CPDLC communications and outside the coverage of ground-based surveillance coverage”.

Milestone	Timeline	Description
1	Nov 2021	Aeronautical Information Circular (AIC) published to inform all stakeholders on the planned RNP 4 operational trial and the reduction of separation between RNP 4 equipped aircraft on ATS routes M767 & N884 starting from 27 Jan 2022
2	Jan 2022	RNP 4 operational trial started on ATS routes M767 and N884 for suitably equipped aircraft operating between Manila and Singapore FIRs.
3	Feb 2022	Aeronautical Information Publication Supplementary (AIP SUP) published to inform all stakeholders of the planned implementation of RNP 4 operations for suitably equipped aircraft on ATS routes M767 & N884 starting on 21 Apr 2022
4	Apr 2022	Implementation of RNP 4 operations on ATS routes M767 and N884
5	Q2 2022	Submission of joint Proposal for Amendment (PfA) to ICAO Regional Supplementary Procedures (Doc 7030) by the Philippines and Singapore
6	Q4 2022	Joint WP submission by the Philippines and Singapore to ICAO ATM/SG to update progress and share feedback on the implementation of RNP 4 on ATS routes M767 and N884

**Table 1: Key Milestones of the Implementation of RNP 4 on ATS Routes M767 and N884**

2.3 With the eventual return to pre-COVID traffic volume, more aircraft are expected to benefit from the reduced longitudinal and lateral separation on both ATS routes, which not only increase capacity of both routes, but also facilitate more optimized flight trajectories for airspace users. This would then improve the management of air traffic in a more efficient and expeditious manner.

2.4 The operational trials have been positive to provide familiarity on the aspects of flight planning, aircraft RNP capabilities and operational conditions for application of the appropriate separation.

2.5 In addition, drawing from the success of the operational trial, a seamless transition to the actual implementation of RNP 4 operations can be expected on M767 and N884 on 21 Apr 2022.

2.6 The implementation of RNP 4 on M767 and N884 will be a positive step towards optimizing airspace capacity and level assignment for the region. Aligned with the ICAO APAC Seamless ANS Plan, the Philippines and Singapore would study the traffic volume and flight details utilizing M767 and N884 before embarking on plans to consider RNP 2 implementation in the future.

2.7 Taking advantage of the reduced air traffic volumes during the pandemic, States should take the opportunity to implement similar PBN initiatives. This would then allow a more efficient and sustainable air traffic system for the Asia Pacific region, which would benefit the aviation industry to support the resumption of air traffic rebound in the years to come.

### **3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) consider the implementation of RNP 4 operations on other ATS routes serving major international aerodromes; and
- b) note the information contained in this paper

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