



*International Civil Aviation Organization*

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

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**Agenda Item 5: ATS Route Development**

**PROPOSAL FOR IMPLEMENTATION OF RNP10 ON A461**

(Presented by INDONESIA)

**SUMMARY**

This paper presents a proposal for the implementation of RNP 10 on A461 within Ujung Pandang FIR in order to provide better opportunities for aircrafts to fly on their economic levels and to increase the airspace capacity within Ujung Pandang FIR.

The implementation of RNP10 operation based on Doc 9613 AN/937 Performance Based Navigation Manual by the use of 50 nm longitudinal separation on A461 might required realignment of route A461 and affect other surrounding route(s)

**1. INTRODUCTION**

1.1 The purpose of this paper is to provide information on the possibilities to implement the RNP 10 (50 NM longitudinal/horizontal separation) on A461 within Ujung Pandang FIR

1.2 The purpose of 50 NM longitudinal/horizontal separation is to increase the airspace capacity within Ujung Pandang FIR.

1.3 ATS Route A461 integrates Manila FIR, Ujung Pandang FIR, and Brisbane FIR. From Manila FIR (southbound), A461 is a converging route to R590. Both routes converge at Ambon (AMN) VOR. From Brisbane FIR (northbound), A461 is a converging route to R340. Both routes converge at AMN VOR

1.4 To achieve the purpose of increasing the airspace capacity within Ujung Pandang FIR realignment route of A461 might be required. Other routes might also required to realign are R590 and R340.

1.5 Operation of 50 NM longitudinal/horizontal separation on A461, might also be conducted without realignment of ATS Routes A461, R590, and R340 with a limited impact on increasing airspace capacity.

## 2. DISCUSSION

2.1 Ujung Pandang capabilities on providing controller pilot direct communication on route A461 are by the use of :

- Voice communication (VFH ER on Manado, Ambon, and Saumlaki); and
- Text based communication by the use of CPDLC.

2.2 The Mach Number Technique (MNT) is applied to the 50 NM longitudinal/horizontal separation within Ujung Pandang FIR.

2.3 The discussion of realignment route A461, R590, and A340 was arise in late 2014 when ITSAP (Indonesia Transport Safety Assistance Package) program was held by Air Services Australia at Makassar, Indonesia.

2.4 On the current condition there are several scenarios of aircraft's flight planning within Ujung Pandang FIR on the routes of A461, R340 and R590:

- Northbound:
  - Entering Ujung FIR via A461 – AMN VOR – exiting via A461
  - Entering Ujung FIR via A461 – AMN VOR – exiting via R340
  - Entering Ujung FIR via R340 – AMN VOR – exiting via A461
  - Entering Ujung FIR via R340 – AMN VOR – exiting via R340
- Southbound
  - Entering Ujung FIR via A461 – AMN VOR – exiting via A461
  - Entering Ujung FIR via A461 – AMN VOR – exiting via R340
  - Entering Ujung FIR via R590 – AMN VOR – exiting via A461
  - Entering Ujung FIR via R590 – AMN VOR – exiting via R340

2.5 Considering 2.4, the realignment of ATS Routes A461, R340, and R590 will affect to the adjacent FIR (Manila FIR and Brisbane FIR). **Attachment A** shows the current ATS route structure, and **Attachment B** shows a proposed route realignment.

2.6 The realignment of A461, R340, and R590 will create several converge points to the existing international and domestic routes within Ujung Pandang FIR.

2.7 Further analysis on how the realignment will affect the three conjunctions FIR's (Manila, Ujung Pandang, Brisbane) and the way aircraft flight will flight planned is required.

2.8 Operation of 50 NM longitudinal/horizontal separation on A461, might also be conducted without realignment of ATS Routes A461, R590, and R340 with a limited impact on increasing airspace capacity.

**3. ACTION BY THE MEETING**

3.1 The meeting is invited to:

- a) note the information contained in this paper; and
- b) discuss any relevant matters as appropriate.

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