



International Civil Aviation Organization

**The First Meeting of ICAO Asia/Pacific Performance Based Navigation
Implementation Coordination Group (PBNICG/1)**

Beijing, China, 10-12 March 2015

**Agenda Item 7: Regional and Sub-Regional Implementations of PBN in En-route
Airspace**

Agenda Item 8: Issues and Challenges regarding PBN Implementations

**RELATED OUTCOMES FROM CMAC/FUA/ATFM PROJECTS
AND WORKSHOPS**

(Presented by Secretariat)

SUMMARY

This working paper presents PBN-related outcomes from CMAC, FUA and ATFM associated projects and workshops conducted by ICAO APAC RSO in 2014.

1. INTRODUCTION

1.1 Aiming to improve airspace organization and maximize ATM performance and capability in Asia and Pacific Region, ICAO in cooperation with partnering States and international organizations conducted a series of projects, meetings, seminars and workshops in 2014. As PBN implementation has a global priority and plays an important role as an enabler to both Air Traffic Flow Management (ATFM) and Airspace Management (ASM), PBN associated issues were discussed widely and several PBN-related outcomes came out from PBN Airspace Design Workshop, CMAC Lecture/Seminar and ATFM Workshop.

2. DISCUSSION

2.1 Outcomes from PBN Airspace Design Workshop

2.1.1 A PBN Airspace Design Workshop was held in Beijing from 30 June to 11 July 2014, during ICAO/IATA PBN Go Team visited China. This workshop included practical exercises and case studies in redesigning Terminal and En-route airspace using PBN, and the Civil/Military coordination process of flexible airspace structure based on PBN as well. During the workshop, Conditional Routes (CDR) based on PBN and Military operation in PBN airspace were introduced and discussed in depth.

2.1.2 The workshop highlighted the Chicago Convention Article 3 that State aircraft is exempted from ICAO's standards and provisions. However, in order to ensure safety of military aircraft operating in PBN airspace and improve the efficiency of National Airspace as a whole, States are recommended to consider national development of particular specifications for State aircrafts to meet performance level of PBN specifications.

2.2 Outcomes from Asia/Pacific Civil/Military Cooperation Lecture and Seminar

2.2.1 An Asia/Pacific Civil/Military Cooperation Lecture and Seminar was held from 19 to 21 November, 2014, at ICAO APAC RSO. It provided useful guidance based on ICAO Circular 330/AN Civil/Military Cooperation in ATM with special focus on CDR and Airspace Management Cell (AMC). It also shared best practices from successes in civil and military cooperation and FUA in United State, Europe and several States in Asia Pacific region.

2.2.2 The workshop recognized the PBN as an enabler to Flexible Use of Airspace (FUA); noted that airspace structure could be designed more flexibly for civil and military use with PBN technology. One important application of PBN for FUA is the planning and implementation of CDR.

2.3 Outcomes from Air Traffic Flow Management (ATFM) Workshop Asia Pacific

2.3.1 The ATFM Workshop Asia Pacific 2014 was held in Beijing, China from 27 to 30 October 2014. The workshop aims to heighten the awareness of Air Traffic Flow Management (ATFM)/Collaborative Decision Making (CDM) principles among aviation service providers, International Organizations and aviation stakeholders.

2.3.2 The workshop noted that enhancing capacity was the first effort in ATFM development, and PBN would be an important enabler. As to ATFM, Sector Capacity may be increased by introducing PBN and Re-determining Sector Capacity would be recommended after introducing new PBN.

3. ACTION BY THE MEETING

3.1 The meeting is invited to:

- a) note the information contained in this paper and the strategic linkages among PBN, FUA and ATFM; and
- b) encourage States to establish CDR routes with appropriate PBN NavSpec in where obvious benefits could be achieved; and
- c) discuss the possibilities and necessities for States to develop a national military PBN operational approval mechanism; and
- d) discuss any relevant matters as appropriate.