



**WORKING PAPER**

**ASSEMBLY — 38TH SESSION**

**TECHNICAL COMMISSION**

**Agenda Item 32: Air Navigation — Policy**

**CHINA'S VIEWS AND INITIATIVES  
ON THE IMPLEMENTATION OF THE GLOBAL AIR NAVIGATION PLAN  
AND THE ASIA/PACIFIC SEAMLESS ATM PLAN**

(Presented by China)

**EXECUTIVE SUMMARY**

The Twelfth Air Navigation Conference (AN-Conf/12), held at the headquarters of the International Civil Aviation Organization (ICAO) in Montreal from 19 to 30 November 2012, considered and adopted the revised Global Air Navigation Plan, 4th Edition (Doc 9750, GANP). The 24th Meeting of the Asia/Pacific Planning and Implementation Group (APANPIRG), held in the Asia and Pacific Regional Office in Bangkok, from 24 to 26 June 2013, approved the Asia/Pacific Seamless ATM Plan, Version 1.0, developed by the Asia/Pacific Seamless ATM planning group. China attaches importance to and actively supports the Global Air Navigation Plan and the Asia/Pacific Seamless ATM Plan. In order to promote these two plans, China will adopt more robust measures and actively cooperate with ICAO and Asia/Pacific countries to further their implementation.

**Action:** The Assembly is invited to recommend that ICAO:

- a) support the Asia/Pacific Seamless ATM Plan; and
- b) provide guidance and assistance to the Asia/Pacific region, particularly developing countries to implement ASBU.

**1. INTRODUCTION**

1.1 The Twelfth Air Navigation Conference (AN-Conf/12), held at the headquarters of the International Civil Aviation organization (ICAO) in Montreal from 19 to 30 November 2012, considered and adopted the revised Global Air Navigation Plan, 4th Edition (Doc 9750, GANP). It was agreed that Aviation System Block Upgrade (ASBU) and its relevant technical roadmaps as components of the global air navigation plan, constitute a valuable implementation tool kit.

<sup>1</sup> Chinese version provided by the People's Republic of China

1.2 The ICAO Global Air Navigation Plan (GANP) is a general framework encompassing some key aviation policy principles which aims to assist ICAO regions, sub-regions and States to formulate their respective regional and national air navigation plans. The objective of the GANP is to, while improving or at least maintaining safety, enhance the capability and efficiency of the global aviation system. The GANP also includes some strategies pertaining to other ICAO strategic objectives. The Global Air Navigation Plan consists of a framework of Aviation System Blocks Upgrade (ASBU), its modules and in particular, technical roadmaps on various subjects such as communications, surveillance, navigation, information management and avionics, etc.

1.3 The fourth meeting of the Asia/Pacific Seamless ATM planning group (APSAPG/4) was held in Hong Kong, China from 3 to 7 June 2013. The meeting, having discussed and undertaken revisions, finalized the development of the Asia/Pacific Seamless ATM Plan, Version 1.0.

1.4 The 24th Meeting of the Asia/Pacific Planning and Implementation Group (APANPIRG/24), held in the Asia/Pacific Regional Office in Bangkok from 24 to 26 June 2013, approved the Asia/Pacific Seamless ATM Plan, Version 1.0, submitted by the Asia/Pacific Seamless ATM planning group.

1.5 The objective of the Asia/Pacific Seamless ATM Plan is to facilitate Asia/Pacific seamless ATM operations by developing and deploying ATM resolutions capable of ensuring safety and efficiency of air transport. The plan provides a framework, including implementation objectives and priorities, for a transition to a seamless ATM environment in order to meet future performance requirements.

## **2. CHINA'S VIEWS ON THE IMPLEMENTATION OF THE GLOBAL AIR NAVIGATION PLAN AND ASIA/PACIFIC SEAMLESS ATM PLAN**

2.1 China supports the Aviation System Block Upgrade methodologies and the updated Global Air Navigation Plan, and under such framework, will expedite its strategic development planning for China's civil aviation ATM system.

2.2 China actively participated in developing the Asia/Pacific Seamless ATM Plan. It also supports the implementation of the Plan

## **3. MEASURES RELATED TO THE IMPLEMENTATION OF THE GLOBAL AIR NAVIGATION PLAN AND ASIA/PACIFIC SEAMLESS ATM PLAN**

3.1 China has conducted in-depth reviews and studies on the Global Air Navigation Plan and ASBU.

3.2 China will conclude the comparison of the Global Air Navigation Plan and ASBU with its existing air navigation system development plan, and then formulate strategies and plans to implement ASBU in China.

3.3 Following the validation and studies of the system and bearing in mind the performance requirements of China's ATM system development, we will formulate a plan to implement the Asia/Pacific Seamless ATM Plan in China and submit the first report on the implementation of the Plan before 1 March 2014.

3.4 China will continue to implement and deploy Block 0 modules such as performance-based navigation (PBN) and automatic dependent surveillance-broadcast (ADS-B). Currently, 30 per cent of the airport terminal areas in China have implemented RNAV procedures that are based on Baro-VNAV. According to China's PBN implementation roadmap, RNAV-1 or RNP-1 operations will be implemented in all the terminal areas and all instrument landing system (ILS/DME) runways will have RNP approach ability by 2016. Regards ADS-B implementation, China already developed a Civil Aviation ADS-B Implementation Plan. In some non-radar control areas, ADS-B has been used for some applications. In accordance with the plan, all airspace in China will be capable of ADS-B surveillance by 2020. In the meantime, China will undertake to research, develop and validate Block 1 modules so as to lay the foundation for future developments.

#### 4. **RECOMMENDATIONS**

4.1 The automation of the ATM system is an essential enabler for the future air navigation system to support operational concepts such as trajectory-based operations. The requirements for the automation of the ATM system set out in the Asia/Pacific Seamless ATM Plan, are not mentioned in either ASBU technical roadmaps or the Global Air Navigation Plan. It is recommended that ICAO provide supplementary roadmaps for the automation of the ATM system as soon as possible.

4.2 The Asia/Pacific region will witness the fastest growth in global air traffic in the next 20 years. The Asia/Pacific countries will face pressure as a result of ASBU in order to meet the air transport industry's needs for safety, capacity, efficiency and environmental sustainability. However, due to factors such as diversity in culture, economy and technology, it will be a challenge for the Asia/Pacific region to achieve consistency and interoperability in its regional air navigation system. It is recommended that ICAO support the Asia/Pacific Seamless ATM Plan and provide guidance and assistance to the Asia/Pacific region, particularly developing countries to implement ASBU.

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